

528 Rec PCT/PTO 26 DEC 2000

SEQUENCE LISTING

<110> INSERT

ALLIEL, Patrick
PERIN, Jean-Pierre
RIEGER, Francois<120> NUCLEIC SEQUENCE AND DEDUCED PROTEIN SEQUENCE FAMILY
WITH HUMAN ENDOGENOUS RETROVIRAL MOTIFS,
AND THEIR USES.

<130> 598EXT21

<140>

<141>

<150> 9807920

<151> 1998-06-23

<160> 122

<170> PatentIn Ver. 2.1

<210> 1

<211> 2599

<212> ADN

<213> Homo sapiens

<400> 1

atccccctgcc	ttaatcgcca	agctccttca	ggagaacaaa	gaacaggcca	ttaccctgga	60
gaagactggc	aactgatttt	acccacaagc	ccaaacctca	gggatttcag	tatctactag	120
tctgggtaga	tactttcacg	ggttgggcag	aggcctttcc	ctgtaggaca	gaaaaggccc	180
aagaggtaat	aaaggcacta	gttcatgaaa	taattcccag	atccggactt	ccccgaggct	240
tacagagtga	caatagccct	gctttccagg	ccacagtaac	ccaggaggta	tcccaggcgt	300
taggtatacg	atatcactta	cactgcgcct	gaaggccaca	gtcttcaggg	aaggtcgaga	360
aaatgaatga	aacactcaaa	ggacatctaa	aaaagcaaac	ccaggaaaacc	cacctcacat	420
ggcctgctct	gttgcctata	gccttaaaaa	gaatctgcaa	ctttcccca	aaagcaggga	480
ttagcccata	cgaaatgctg	tatggaaggc	cttccataac	caatgacctt	gtgcttgacc	540
caagacagcc	aacttagttg	cagacatcac	ctccttagcc	aaatatcaac	aagttcttaa	600
aacattacaa	ggaacctatc	cctgagaaga	gggaaaagaa	ctatttcacc	cttgtgacat	660
ggtattagtc	aagtcccttc	cctctaattc	cccatcccta	gatacatcct	gggaaggacc	720
ctacccagtc	attttatcta	ccccaaactgc	ggttaaagtg	gctggagtgg	agtcttggat	780
acatcacact	tgagtcaaat	cctggatact	gccaaaggaa	cctgaaaatc	caggagacaa	840
cgctagctat	tcctgtgaac	ctctagagga	tttgcgcctg	ctcttcaaac	aacaaccagg	900
aggaaaagtaa	ctaaaatcat	aaatcccat	ggccctccct	tatcataatt	ttctctttac	960
tgttctttta	ccctctttca	ctctcactgc	acccctccca	tgccgctgta	tgaccagtag	1020
ctcccccttac	caagagtttc	tatggagaat	gcagcgtccc	ggaaatattg	atgccccatc	1080
gtataggagt	ctttctaagg	gaacccccac	cttcactgcc	cacacccata	tgccccgcaa	1140
ctgctatcac	tctgccactc	tttgcatgca	tgcaaatact	cattattgga	caggaaaaat	1200
gattaatcct	agttgtcctg	gaggacttgg	agtcactgtc	tgttggactt	acttcaccca	1260
aactggtagt	tctgatgggg	gtggagttca	agatcaggca	agagaaaaaa	atgtaaaaga	1320
agtaattctc	caactcaccc	gggtacatgg	cacctctagc	ccctacaaag	gactagatct	1380
ctcaaaaacta	catgaaaccc	tccgtaccca	tactcgcctg	gtaagcctat	ttaataccac	1440
cctcactggg	ctccatgagg	tctcggccca	aaaccctact	aactgttggg	tatgcctccc	1500
cctgaacttc	aggccatatg	tttcaatccc	tgtacctgaa	caatggaaca	acttcagcac	1560
agaaaataaac	accacttccg	ttttagtagg	acctcttgtt	tccaatctgg	aaataaccca	1620
tacctcaaac	ctcacctgtg	taaaatttag	caatactaca	tacacaacca	actcccaatg	1680

09719554-011801

2

catcaggtgg	gtaactcctc	ccacacaaaat	agtctgecta	ccctcaggaa	tattttttgt	1740
ctgtgggtacc	tcagcctatc	gttgtttgaa	tggctcttca	gaatctatgt	gcttcctctc	1800
attcttagtg	ccccctatga	ccatctacac	tgaacaagat	ttatacagtt	atgtcatatc	1860
taagccccgc	aacaaaagag	taccattctt	tccttttgtt	ataggagcag	gagtgctagg	1920
tgcactaggt	actggcattg	gcggtatcac	aacctctact	cagttctact	acaaactatc	1980
tcaagaacta	aatggggaca	tggaaacgggt	cgccgactcc	ctggctaccc	tgcaagatca	2040
acttaactcc	ctagcagcag	tagtccttca	aaatcgaaga	gcttttagact	tgctaaccgc	2100
tgaaagagg	ggaacctgtt	tatttttagg	ggaagaatgc	tgttattatg	ttaatcaatc	2160
cggaatcgtc	actgagaaa	ttaaagaaat	tcgagatcga	atacaacgta	gagcagagga	2220
gcttcgaaac	actggaccct	ggggcctcct	cagccaatgg	atgccctgga	ttctccctct	2280
cttaggacct	ctagcagcta	taatatgtct	actcctcttt	ggacctgta	tctttaacct	2340
ccttggttaac	tttgtctctt	ccagaatcga	agctgtaaaa	ctacaaatgg	agcccaagat	2400
gcagtccaag	actaagatct	accgcagacc	cctggaccgg	cctgctagcc	cacgatctga	2460
tgtaaatgac	atcaaaggca	cccctcctga	ggaaatctca	gctgcacaa	ctctactacg	2520
cccccaattca	gcaggaagca	gttagagcgg	tctcggccaa	cctccccaac	agcacttagg	2580
ttttcctggt	gagatgggg					2599

<210> 2

<211> 1326

<212> ADN

<213> Homo sapiens

<400> 2

gccgcctggc	actcctgagg	gaagtataaa	ttataacacc	atcttacagc	tagacctctt	60
ttgtagaaaa	ggcaaatgga	gtgaagtgcc	ataagtacaa	actttctttt	cattaagaga	120
caactcacia	ttatgtaaaa	agtgtgattt	atgccctaca	ggaagccttc	agagtctacc	180
tcctatcccc	agcatccccg	actcctcccc	caactaataa	ggacccccct	tcaacccaaa	240
tggtccaaaa	ggagatagac	aaaagggtaa	acagtgaacc	aaagagtgcc	aattattcccc	300
aattatgacc	cctccaagca	gtgggaggaa	gagaattcgg	cccagccaga	gtgcatgtgc	360
ctttttctct	cccagactta	aagcaaataa	aaacagactt	aggtaaattc	tcagataacc	420
cttgatgcta	tattgatgtt	ttacaagggt	taggacaatt	ctttgatctg	acatggagag	480
atataatgtc	actgctaaat	cagacactaa	ccccaaatga	gagaagtgcc	accataactg	540
cagcctgaga	gtttggcgat	ctctggatc	tcagtcaggt	caatgatagg	atgacaacag	600
aggaaagaga	atgattcccc	acaggccagc	aggcagttcc	cagcttagac	cctcattggg	660
acacagaatc	agaacatgga	gattggtgct	gcagacattt	gctaacttgt	gtgctagaag	720
gactaaggaa	aactaggaag	aagtctatga	attactcaat	gatgtccacc	ataacacagg	780
gaagggaaga	aaatcctact	gcctttctgg	agagactaag	ggaggcattg	aggaagcgtg	840
cctctctgtc	acctgactct	tctgaaggcc	aactaatctt	aaagcgtaag	tttatcactc	900
agtcagctgc	agacattaga	aaaaaaacttc	aaaagtctgc	cgtaggcccc	gagcaaaact	960
tagaaaccct	attgaacttg	gcaacctcgg	ttttttataa	tagagatcag	gaggagcagg	1020
cggaacagga	caaacgggat	taaaaaaaag	gccaccgctt	tagtcatgac	cctcaggcaa	1080
gtggactttg	gaggctctgg	aaaagggaag	agctgggcaa	attgaatgcc	taatagggct	1140
tgcttccagt	gcggtctaca	aggacacttt	aaaaaagatt	gtccaagtag	aagtaagccg	1200
ccccctcgtc	catgccccct	atttcaagg	aatcactgga	aggccactg	ccccagggga	1260
caaaggtcct	ctgagtcaga	agccactaac	cagatgatcc	agcagcagga	ctgagggtgc	1320
ctgggg						1326

<210> 3

<211> 10499

<212> ADN

<213> Homo sapiens

<400> 3

ccctggggcg	ggcttccttt	ctgggatgag	ggcaaaaacgc	ctggagatac	agcaattatc	60
ttgcaactga	gagacaggac	tagctggatt	tcctaggccg	actaagaatc	cctaagccta	120
gctgggaagg	tgaccacgtc	cacctttaaa	cacggggctt	gcaacttagc	tcacacctga	180

09719554.011801

ccaatcagag agctcactaa aatgctaatt aggcaaagac aggaggtaaa gaaatagcca 240
 atcatctatt gcctgagagc acagcaggag ggacaacaat cgggatataa acccaggcat 300
 tcgagctggc aacagcagcc cccctttggg tcccttccct ttgtatggga gctgttttca 360
 tgctatttca ctctattaaa tcttgcaact gcactcttct ggtccatgtt tcttacggct 420
 cgagctgagc ttttgctcac cgtccaccac tgctgtttgc caccaccgca gacctgccg 480
 tgactcccat ccctctggat cctgcagggt gtccgctgtg ctccctgatcc agcgaggcgc 540
 ccattgccgc tcccaattgg gctaaaggct tgccattgtt cctgcacggc taagtgcctg 600
 gggttgttct aattgagctg aacactagtc actgggttcc atggttctct tctgtgacct 660
 acggcttcta atagaactat aacacttacc acatggccca agattccatt ccttggaaatc 720
 cgtgaggcca agaactccag gtcagagaat acgaggcttg ccaccatctt ggaagcggcc 780
 tgctaccatc ttggaagtgg ttcaccacca tcttggggagc tctgtgagca aggaccccc 840
 ggtaacattt tggcaaccac gaacggacat ccaaagtgtt gagtaatat ggaccacttt 900
 cacttgctat tctgtccctat ccttcccttag aattggagga aaataccggg cacttgtcgg 960
 ccagttaaaa acgattagtg tggccaccgg acttaagact caggtgtgag gctatctggg 1020
 gaagggcttt ctaacaaccc ccaacccttc tgggttggg acttgggttg cctcaagcca 1080
 gcttccactt tcagttttct tggggaagcc gagggccgac tagaggcaga aagctgtcgt 1140
 cctgaactcc cggcagtagc cggttgagat catggtgtag ccagaagtct caacagtgc 1200
 ccatgcatgc acccctatct ttccttctga cccatacctc ctgggtccca accacaactt 1260
 tcttcaaagt gtagcccaa aattctcctt acctctgaat atacttctc tgatccctgc 1320
 tcttaaggtg ctattggttc agacttccat tcccttagc aagttgtatc tccaaaggga 1380
 ctcaagggaag ctctgcgtg cgtccttagg acttaggct ataaccagg gactcttatc 1440
 cctggtgtcc ctcccaattt aggcatacag ctcttgacat gggcagttat gtaggacca 1500
 ctccccacca cccttgccag ggccccaagt ttgtaaatgg ctgagggaaa agagagacag 1560
 aggagagaga gagaaatgga ggagaaagag agagagacag agaggagaga gagacagtga 1620
 gagagacaga agagagagag agacaaaagag gagagagaga gagtcaaaga gagaaagaaa 1680
 gagaaagaaa tagtaaaaaa cagtgtgccc tattccttta aaagccaggg taaattttaa 1740
 acctgtactt gataattgaa ggtcttctct gtgacctat agcactccaa tccactttgt 1800
 ggtcagtgtg aataagagca taggccgaaa gcactgaggc cattgacaac ccgtagcttc 1860
 cctatcaaaa atccttaacc cagtaaccgg cagatggacc aaatgcattc agtcggtagc 1920
 gcaactgctt tgctaaaagt agaaaagttaa cttttagagg aaacctcatt gtgagcacac 1980
 ctcaactgtt cagaattatt ctaataaaaa aagcaaaaag gtagcttact aactcaaaa 2040
 tcttaaagta tggggctatt ctgttagaaa aaggtaatgt aactccaacc actcattaat 2100
 cccttaaccc agcagatttc ctaacgggat ttaaacttta attaccatac aaaggtccga 2160
 ccagacctag gcggaactcc cttcaggaca ggacgataga tggttcctcc caggtgattg 2220
 aggaaaaaaa ccacaatggg tattcagtaa ttgatacggg gactcttggt gaagcagagt 2280
 tagaaaaatt gcctaataac tgggtctctc aaacgtgtga gctgtttgca ctacgccaag 2340
 ccttaaagta cttacagaat caaaaagact tctcaatcct gattcaaaaag gttagctaca 2400
 cctctctgt atagcatttg cataagaact tgtttatggg aatgcatctt gatggggcag 2460
 ctgggttgtt ataaaaatagg aaccagccc agctctagga ctacccctg agcgcaaaag 2520
 caatgttggg catgctggtg aaggaccact agaatccagc agcccagacc cctttctttg 2580
 tggtaagaa aggcgggaaa aggggtgcag gactgctaca tcggtaagca taactaatcc 2640
 gataaacaga ggtccatggg tggttacgca ccctggaaag gaactcacc ctgagcaca 2700
 aggcaatgtt gggcacgctg gtaaaaggacc actagaatcc agcagcctg acccctttct 2760
 ttgtgggtcaa gagaggcagg aaaacagggtg caggactgca acatcagtga gcataactaa 2820
 ttcgataagc agagggtccat ggggtggtgat gcacctgga aagaataagc attaggacca 2880
 tagaggacac tccaggacta aagctcatcg gaaaatgact aggggttctg gcatccctat 2940
 gttctttttt cagatgggaa acgttccccg caagacaaaa acgcccctaa gacgtattct 3000
 ggagaattgg gaccaatttg accctcagac actaagaaaag aaacgactta tattcttctg 3060
 cagtgcgcgc tggcactcct gagggaaagta taaattataa caccatctta cagctagacc 3120
 tcttttgttg aaaaggcaaa tggagtgaag tgccataagt acaaactttc ttttcattaa 3180
 gagacaactc acaattatgt aaaaagtgtg atttatgccc tacaggaagc cttcagagtc 3240
 tacctcccta tcccagcatc cccgactcct tccccaacta ataaggacc ccttcaacc 3300
 caaatggtcc aaaaggagat agacaaaagg gtaaacagtg aaccaaagag tgccaatatt 3360
 cccaattat gaccctcca agcagtggga ggaagagaat tcggcccagc cagagtgcac 3420
 gtgccttttt ctctccaga cttaaagcaa ataaaaacag acttaggtaa attctcagat 3480
 aaccctgatg gctatattga tgttttaca ggttaggac aattcttga tctgacatgg 3540
 agagatataa tgtcactgct aaatcagaca ctaccccaa atgagagaag ttgcaccata 3600
 actgcagcct gagagtttgg cgatctctgt tatctcagtc aggtcaatga taggatgaca 3660

acagaggaaa	gagaatgatt	ccccacaggg	cagcagggcag	ttcccagtc	agaccctcat	3720
tgggacacag	aatcagaaca	tggagattgg	tgctgcagac	atttgctaac	ttgtgtgcta	3750
gaaggactaa	ggaaaactag	gaagaagtct	atgaattact	caatgatgtc	caccataaca	3840
caggggaagg	aagaaaatcc	tactgccttt	ctggagagac	taagggaggg	attgaggaag	3900
cgtgcctctc	tgtcacctga	ctcttctgaa	ggccaactaa	tcttaaagcg	taagttttac	3960
actcagtcag	ctgcagacat	tagaaaaaaa	cttcaaaaagt	ctgccgtagg	ccgggagcaa	4020
aacttagaaa	ccctattgaa	cttggcaacc	tcggtttttt	ataatagaga	tcaggaggag	4080
caggcggaac	aggacaaaac	ggattaaaaa	aaaggccacc	gctttagtca	tgaccctcag	4140
gcaagtggac	tttggaggct	ctggaaaagg	gaaaagctgg	gcaaattgaa	tgctaataag	4200
ggcttgcttc	cagtgcgggc	tacaaggaca	ctttaaaaaa	gattgtccaa	gtagaagtaa	4260
gccgccccct	cgtccatgcc	ccctattttca	aggggaatcac	tggaaggccc	actgccccag	4320
gggacaaaag	tcctctgagt	cagaagccac	taaccagatg	atccagcagc	aggactgagg	4380
gtgcctgggg	caagcgccat	cccatgccat	caccctcaca	gagccctggg	tatgcttgac	4440
cattgagggc	caggagggtg	tctcctggac	actggtgcgg	tcttcttagt	cttactcttc	4500
tgtcccggac	aactgtcctc	cagatctgtc	actatctgag	ggggtcctaa	gacgggcagt	4560
cactagatac	ttctcccagc	cactaagtta	tgactgggga	gctttattct	tttcacatgc	4620
ttttctaatt	atgcttgaaa	gccccactac	cttggttaggg	agagacattc	tagcaaaaagc	4680
agggggcatt	atacacctga	acataggaga	aggaacaccc	gtttgtttgtc	ccctgcttga	4740
ggaaggaaatt	aatcctgaag	tctgggcaac	agaaggacaa	tatggacgag	caagaatgc	4800
ccgtcctgtt	caagttaaac	taaaggattc	cacctccttt	ccctaccaaa	ggcagtaacc	4860
cctcagaccc	aaggcccaac	aaggactcca	aaagattgtt	aaggacctaa	aagcccaagg	4920
cctagtaaaa	ccatgcagta	acccctgcag	tactccaatt	ttaggagtag	agaaacccaa	4980
cagacagtgg	aggttagtgc	aagatctcag	gattatcaat	gaggctgttg	ttcctctata	5040
gccagctgta	cctagccctt	atactctgct	ttcccaata	ccagaggaag	cagagtgggt	5100
tacagtccctg	gaccttcagg	atgccttctt	ctgcattccct	gtacatcctg	actctcaatt	5160
cttgtttgcc	tttgaagata	cttcaaaacc	aacatctcaa	ctcacctgga	ctattttacc	5220
ccaagggttc	agggatagtc	cccattctatt	tggccaggca	ttagcccaag	acttgagcca	5280
atcctcatat	ctggacactt	gtccttcggt	aggttgatga	tttacttttg	gccgcccatt	5340
cagaaacctt	gtgccatcaa	gccacccaag	cgctcttcaa	tttctctgct	acctgtggct	5400
acatggtttc	caaaccaaa	gctcaactct	gctcacagca	ggttacttag	ggctaaaaat	5460
atccaaaagg	accagggcc	tcagtgagga	acacatccag	cctatactgg	cttatcctca	5520
tcccaaaaacc	ctaaagcaac	taaggggatt	ccttggcgta	ataggtttct	gccgaaaatg	5580
gattcccagg	tatggcgaaa	tagccagggtc	attaaataca	ctaattaagg	aaactcagaa	5640
agccaataacc	catttagtaa	gatggacaac	tgaagtagaa	gtggctttcc	aggccctaac	5700
ccaagcccca	gtgttaagtt	tgccaacagg	gcaagacttt	tcttcataatg	tcacagaaaa	5760
aacaggaata	gctctaggag	tccttacaca	gatccgaggg	atgagcttgc	aacctgtggc	5820
atacctgact	aaggaaattg	atgtagtggc	aaagggttga	cctcattgtt	tcagggttag	5880
ggtggcagta	gcagtcttag	tatctgaagc	agttaaaaata	atacagggaa	gagatcttac	5940
tgtgtggaca	tctcatgatg	tgaatggcat	actcactgct	aaaggagact	tgtggctgtc	6000
agacaactgt	ttacttaaat	gtcaggctct	attacttgaa	gggccagtgc	tgcgactgtg	6060
cacttgtgca	actcttaacc	cagccacatt	tcttccagac	aatgaagaaa	agataaaaca	6120
taactgtcaa	caagtaattt	ctcaaaccta	tgccactcga	ggggaccttt	tagaggttcc	6180
tttgactgat	cccgaacctca	acttgtatac	tgatggaaagt	tcctttgtag	aaaaaggact	6240
tcgaaaagtg	gggtatgcag	tggtcagtga	taatggaaata	cttgaaagta	atccccctac	6300
tccaggaact	agtgtctcagc	tagcagaact	aatagccctc	acttgggcac	tagaattagg	6360
agaagaaaaa	agggcaataa	tatatacaga	ctctaaatat	gcttacctag	tcctccatgc	6420
ccatgcagca	atatggaaa	aaagggaatt	cctaacttct	gagagaacac	ctatcaaaaa	6480
tcaggaagcc	attaggaaat	tattattggc	tgtacagaaa	cctaaagagg	tggcagtctt	6540
acactggccg	ggtcatcaga	aaggaaaagg	aaagggaata	gaagagaact	gccaagcaga	6600
tattgaagcc	aaaagagctg	caaggcagga	ccctccatta	gaaatgctta	taaaacaacc	6660
cctagtatat	ggtaatcccc	tccgggaaac	caagccccag	tactcagcag	gagaaacaga	6720
atggggaaac	tcacgaggac	agttttctcc	cctcgggacg	gctagccact	gaagaaggga	6780
aaatactttt	gcctgcaact	atccaatgga	aattacttaa	aacccttcat	caaacctttc	6840
acttaggcat	cgaatgcacc	catcagatgg	ccaaatcatt	atttactgga	ccaggccttt	6900
tcaaaaactat	caagcagata	gtcagggcct	gtgaagtgtg	ccagagaaat	aatccccctg	6960
cttatcgcca	agctccttca	ggagaacaaa	gaacaggcca	ttaccctgga	gaagactggc	7020
aactgatttt	acccacaagc	ccaaacctca	gggatttcag	tatctactag	tctgggtaga	7080
tactttcacg	ggttgggcag	aggccttccc	ctgtaggaca	gaaaaggccc	aagaggtaat	7140

aaaggcacta	gttcatgaaa	taattcccag	attcggactt	ccccgaggct	tacagagtga	7200
caatagccct	gctttccagg	ccacagtaac	ccaggaggta	tcccaggcgt	taggtatagc	7260
atatcactta	cactgcgcct	gaaggccaca	gtcctcaggg	aaggtcgaga	aaatgaatga	7320
aacactcaaa	ggacatctaa	aaaagcaaac	ccaggaaaacc	cacctcacat	ggcctgctct	7380
gttgccctata	gccttaaaaa	gaatctgcaa	ctttccccc	aaagcaggac	ttagcccata	7440
cgaaatgctg	tatggaaggc	ccttcataac	caatgacctt	gtgcttgacc	caagacagcc	7500
aacttagttg	cagacatcac	ctccttagcc	aaatatcaac	aagttcttaa	aacattacaa	7560
ggaacctatc	cctgagaaga	gggaaaagaa	ctattccacc	cttgtgacat	ggattagtc	7620
aagtcccttc	cctctaattc	cccattcccta	gatacatcct	gggaaggacc	ctaccagtc	7680
attttatcta	ccccaaactg	ggttaaagtg	gctggagtgg	agtcttgga	acatcacact	7740
tgagtcaaat	cctggatact	gccaaaggaa	cctgaaaatc	caggagacaa	cgctagctat	7800
tctgtgaac	ctctagagga	tttgcgccctg	ctcttcaaac	aacaaccagg	aggaaagtaa	7860
ctaaaatcat	aaatcccat	ggccctccct	tatcatattt	ttctctttac	tggtctttta	7920
ccctctttca	ctctcactgc	acccctccca	tgcgcgtgta	tgaccagtag	ctccctttac	7980
caagagtttc	tatggagaat	gcagcgtccc	ggaaatattg	atgccccatc	gtataggagt	8040
ctttctaagg	gaacccccac	cttcactgcc	cacacccata	tgccccgcaa	ctgctatcac	8100
tctgccactc	tttgcatgca	tgcaaatact	cattattgga	caggaaaaat	gattaatcct	8160
agttgtcctg	gaggacttgg	agtcactgtc	tgttggactt	acttcaccca	aactggtagc	8220
tctgatgggg	gtggagttca	agatcaggca	agagaaaaac	atgtaaaaga	agtaatctcc	8280
caactcacc	gggtacatgg	cacctctagc	ccctacaaag	gactagatct	ctcaaaacta	8340
catgaaaccc	tccgtaccca	tactcgccctg	gtaagcctat	taataaccac	cctcactggg	8400
ctccatgagg	tctcggccca	aaaccctact	aactgttgga	tatgcctccc	cctgaacttc	8460
aggccatatg	tttcaatccc	tgtacctgaa	caatggaaca	acttcagcac	agaaataaac	8520
accacttccg	ttttagtagg	acctcttggt	tccaatctgg	aaataaccca	tacctcaaac	8580
ctcacctgtg	taaaatttag	caatactaca	tacacaacca	actoccaaag	cactaggtgg	8640
gtaactcctc	ccacacaaat	agtctgccta	ccctcaggaa	tattttttgt	ctgtggtagc	8700
tcagccctatc	gttggttgaa	tggtctcttca	gaatctatgt	gcttctctct	attcttagtg	8760
ccccctatga	ccatctacac	tgaacaagat	ttatacagtt	atgtcatatc	taagccccgc	8820
aacaaaagag	taccattctt	tctttttgtt	ataggagcag	gagtgtctagg	tgcaactaggt	8880
actggcattg	gcggtatcac	aacctctact	cagttctact	acaaactatc	tcaagaacta	8940
aatggggaca	tggaacgggt	cgccgactcc	ctgggtcacct	tgcaagatca	acttaactcc	9000
ctagcagcag	tagtccctca	aaatcgaaga	gcttttagact	tgctaaccgc	tgaaagaggg	9060
ggaacctgtt	tatttttagg	ggaagaatgc	tggtattatg	ttaatcaatc	cggaatcgtc	9120
actgagaaag	ttaaagaaat	tcgagatcga	atacaacgta	gagcagagga	gcttcgaaac	9180
actggaccct	ggggcctcct	cagccaatgg	atgccctgga	ttctccctct	cttaggacct	9240
ctagcagcta	taatatgtct	actcctcttt	ggaccctgta	tctttaacct	ccttggttaa	9300
tttgtctctt	ccagaatcga	agctgtaaaa	cgaccaatgg	agcccaagat	gcagttcaag	9360
actaagatct	accgcagacc	cctggaccgg	cctgctagcc	cacgatctga	tgtaaatgac	9420
atcaaaggca	ccccctctga	ggaaatctca	gctgcacaac	ctctactacg	ccccatttca	9480
gcaggaagca	gttagagcgg	tctcggccaa	cctccccaac	agcacttagg	ttttcctgtt	9540
gagatggggg	actgagagac	aggactagct	ggatttctta	ggctgactaa	gaatccctaa	9600
gcctagcttg	gaaggtgacc	acatccacct	ttaaacacgg	ggcttgcaac	ttagctcaca	9660
cctgaccaat	cagagagctc	actaaaatgc	taattaggca	aagacaggag	gtaaaagaaat	9720
agccaatcat	ctattgcctg	agagcacagc	aggagggaca	atgatcggga	tataaaccca	9780
agtcttcgag	ccggcaacgg	caacccccct	tgggtccctt	ccctttgtat	gggagctctg	9840
ttttcatgct	atttcaactc	attaaatctt	gcaactgcac	tcttctggtc	catgtttctt	9900
acggcttgag	ctgagctttc	gctcgccatc	caccactgct	gtttgcgcgc	accgcagacc	9960
gcgcgctgac	tcccatccct	ctggatcatg	cagggtgtcc	gctgtgctcc	tgatccagcg	10020
aggcacccat	tgccgctccc	aatcgggcta	aaggcttgcc	attgttctct	catggctaag	10080
tgccctgggtt	catectaatt	gagctgaaca	ctagtcaactg	ggttccatgg	ttctcttctg	10140
tgaccacacag	cttctaatag	agctataaca	ctcacgcgat	ggcccaaggt	tccattcctt	10200
gaatccataa	ggccaagaac	cccaggtcag	agaacacgag	gcttgccacc	atcttgggag	10260
ctctgtgagc	aaggaccccc	aagtaacaca	accatgaggg	tgcaaatgca	tgggcccacta	10320
atggttagagc	aagaaaaactg	aagggcctctg	gttctctgaa	ggcatcagtg	agctgaaatg	10380
cctgcctctg	ctaggtggtt	ttcttgccctg	aaagcagatta	aacctttgtt	10440	
tcactttctcc	aagtagggct	tctattacag	cccaaatcaa	tccccacccc	agatgacat	10499

<210> 4
 <211> 2784
 <212> ADN
 <213> Homo sapiens

<400> 4
 ctccttcagg agaacaaaga acaggccact acccaagaga agactggcaa ctgattttta 60
 cccatatgcc caaatctcag ggatttcagt atctactagt ttgggtagat actttcactg 120
 gttgggcaga ggccctcccc tgtaggacag aaaaggccca agaggtaata aacgttcag 180
 aaataattcc cagattcgga cttccccaag gcttacagag tgacaatggc cctgctttca 240
 aggctacagt aacccaagga gtatcccagg tgttaggtat acaatatcac tcacactg 300
 cctggaggcc acagtcctca ggaaagggtg agaaaatgaa caaaacactc aaatgacatc 360
 taaaaaagct aatccaggaa acccacctcg catggcctgc tctgttgccct atagccttac 420
 taagaatccg aaactctccc caaaaagcag gacttagtcc atacaaaatg ctgtatggac 480
 ggcccttcct aaccaatgaa cttgggcttg accgagagac agccaactta gttgcagaca 540
 tcatctcctt agccaaatat caacaggttc ttaaaacatt acagggagcc tgtccccaag 600
 aagagggaaa ggaactattc caccctggtg acatggtatt agtcaagtcc cttccctcta 660
 attccccatc cctagatata tcctgggaag gaaactaccc agccatttta tctaccctaa 720
 cggcagttaa agtggctgga gcggagtctt ggatacatca cactcaagtc aaaccctgga 780
 tactgccaaa ggaactcaaa aatccatgag acaatgctag ctattcctgt gaacctctag 840
 aggatctgag cctgctcttc aaatgacaac cagggggaaa gtaactaaaa tcgtaaatcc 900
 cctggccctc ccttatcata tttttctctt tactgtcttc ttacccctct tcaactctac 960
 tgcaccccggt ccatgccact gcaccccggt catgccccgt ccattgccagt agctccctct 1020
 agcaagagtt tctatggaga atgcagcgct ccggaaatat tgatgccccca ttgtatagga 1080
 gtttatctaa gggaaccccc accttcactg cccacacca tatgccccac aactgctata 1140
 actctgccac tctttgcatg catgcaataa ctcattattg gacaggaaaa acgattaatc 1200
 ccagttgtcc tggaggactt ggaggactca cttcactcat accagtatgt ctgatggggg 1260
 tggagttcaa gatcaggcaa cagaaaaaca cataaaggaa gtaactctcc aactgacctg 1320
 ggtacatagc acccctggcc cctacaaagg actagatctc tcaaaactac atgaaaccct 1380
 ccatacccat actggcctgg taagcctatt taataccacc ctgactgggc tccatgaggt 1440
 ctccggccaa aaccctacta actgttggat gtgctccccc ctgcacttta ggccatacat 1500
 ttcaatccct atacctgaac aatggaacaa cttcagcaca gaaataaaca ccacttctgt 1560
 ttttagtaggt cctctttcca atctggaaat aaccataacc tcaaacctca cctgtgtaaa 1620
 atttagcaat actatagaca cagccaactc ccaatgcac aggtgggtaa ctctccac 1680
 acgaatagtc tgcctaccct caggaatatt tttgtctgt ggtacctcag cctatcattg 1740
 tttgaatggc tcttcagaat ctgtgtgctt cctctcattc ttagtgcccc ctatgcccat 1800
 ctacactgaa caagatttat acaatcatgt catacctaag ccccgcaaca aaagagtacc 1860
 cattcttcct tttgttattg gagcaggagt gctaggcgga gtagctactg gcattggcgg 1920
 tatcacaacc tctactcagt tctactacaa actgtctcaa gaactaaatg gtgacatgga 1980
 atgggtcgct gataccctgg tcaccttgca agatcaactt aactccctag cagcagtagt 2040
 ccttcaaaat cgaagagctt tagacttgct aaccgcgga agcgggggaa cctttttatt 2100
 ttttagaggaa aaatgctgtt gttatgttaa tcaatccgga atcatcaccg agaaagttaa 2160
 agaaattcaa ggtcgaatat aacgtagagc aaaggagctg caaaacactg gacctgggg 2220
 cctcctcagc caatggatgc cctggattct ccccttcta ggacctctag cagctataat 2280
 attgttactc ctctttggac cctgtatctt taacctcctt gttaagtgtt tcttttccag 2340
 aatcgaagca gtaaaactac aaatcgttct tcaaatggag ccccagatgc agtccatgag 2400
 taaaatctac cacggacccc tggaccggcc tgctagccca tgctctgatg ttaatgacat 2460
 caaaggcacc cctcccagag aaatctcaac tgcacaacct ctactacgcc ccaattcagc 2520
 aggaagcagt tagagtgggt gttggccaac ctccccaaca gcagttgggt tttcctgttg 2580
 agagggggga ctgagagaca ggaataacta gatttcctag accaactaag aatccctaag 2640
 actagctggg aaggtgaccg cttccacctt taaacaccgg gcttgcaact tagctcacgc 2700
 ccaaccaatc agatactaaa gagagctcac taaaatgcta attaggcaaa aacaggagat 2760
 aaagaaatag ccaatcatct gttg 2784

<210> 5
 <211> 1799
 <212> ADN
 <213> Homo sapiens

<400> 5
 gggattctta gtcggcctag gaaatccagc taatcctgtc tctcagtcce cccactcaac 60
 aggaaaaccc aagtgtctgt ggggaggttg gctgacgacc agtctaactg ctctctgcgg 120
 aattggggca tagtaggggt tgtgcagttg agatttcctc gggaggggtg cgttcgatac 180
 cattacaatt ggagcatggg ctagtagggc ggtccagggg tccacggtag atcttagtca 240
 tggacttcat ctgggggttc atttgaagaa cgattttagt ctttacaact ttgattctgg 300
 aagagacaaa ctttaacaagg aggttaaaga tacaggggtc aaagaggagt atcaatatta 360
 gagctgctag agatcctaag aaggggagaa tccagggcat ccattggctg aggaggcccc 420
 aggggtctgt gtttttgaag ctctctgtt ctacgttgta ttcaatctcg aatttcttca 480
 actttctctg tgacaattca ggattgatta acataataac aatattcttc cgctaaaaata 540
 acataataac aacattcttc ccctaaaaat aaacagcttc cccctcttcc agagggttagc 600
 aagtctaaag ctcttcaatt ttgaaggact actgatgcta ggaagttaag ttgatcttgc 660
 aaggtgacca gggagtcggc aaccctattcc atgtcaccat tgagttcttg agatagtttg 720
 tagtagaact gagtagaggt tgtggtaccg ccaatgccag aacctagtcc acctagcact 780
 cctgctccga taacaaaagg aagaatgagt actcttttct tgtggggctt aggtacaaca 840
 taattgtata aatcttgttc agtgtaaatg gtcattgggg cactaagaat gagaggaaac 900
 acatagattc tgaagagcca ttcaaacaac gataggctaa ggtaccacag acaaaaaata 960
 ttcttgaggg taggcagact attcgtgttg gaggagttac ccacctgatg cattgggagt 1020
 tggttgtgtc tacagtattg ctaaatttta cacagggtgag gttttagggt tgggttattt 1080
 ccagattgga aacaagaggt cctactaaaa cggaagtggg gtttatttct gtgctgtagt 1140
 tgttccattg ttcaggtaca gggattgaaa tgcattggcc gaaatacagg gggaggcaca 1200
 accaacagtt agtagggttt tggaccgaga cctcatggag cccagtggag gtggtattaa 1260
 ataggcttac caggcaagta tgggtatgga gggtttcatg tagttttaag agatctagtc 1320
 cttttagagg gctaggggtg ctatgtaccc gggtcagttg ggaggttact tcctttacat 1380
 gtttttctct tgctgatct tgaactccac cccctcaga cataccagta tgggtgaagt 1440
 aagtccgaca gacagtggct ccaagtcttc caggacaact aggattaatc attttccctg 1500
 tccaataatg agtatttgca tgcattgcaa gattggcaga gttatagcag ttgtggggca 1560
 tatgggtgtg ggcagtgaag gtggagtttc ctttaggtaa actcctattt gatggggcat 1620
 caatatttct ggggaagccgc attcttcata gaaactcttg gtaaggggag ctgctgggtg 1680
 tacagcagca tggagggggg gcagtgaag tgaaaggggg taagagaaca gtaaagagaa 1740
 aaatatgata agggagggcc atggggattt acgatttttag ttactttctt cacggttgt 1799

<210> 6
 <211> 1489
 <212> ADN
 <213> Homo sapiens

<400> 6
 tgggtgcttg cccgggcact ctcagtcctg ctgctggatc atctgggttag tggcttctga 60
 ctcaaggagc ctacgtcccc tggggcagtg ggccttacag tgattccctt gacacgaggt 120
 gcatggacga gggggcgggt tatttctatt tggacaatct tttttaaagt gtcctttagt 180
 accgcactgg aagcaaaccc tatttagcat ttgatttgcc tagcttttcc cttttccagt 240
 gcctccaaag tccgcttgcc tgagggccat gactaaagcg gtggcctttt ttttatccca 300
 tttgtcccat tctgctgct catcctgatc tctattataa aaaactgagg ttgccaagtt 360
 caatagggtt tctaagtttt gttccgggcc taaggcagac ttttgaagtt ttttctaat 420
 gtctgtagct gactgagtga taaacttatc ctttaagatt agttggcctt cagtagagtc 480
 agttgacaga gagaggtatg ctctctcaat gcctccgtta gtcactccag aaaggcggta 540
 ggattttctt cctttccctg tgttatagtg gacatcattg aataactcac aggttctttt 600
 ctagttttcc ttagtctctc tagcacgcaa gtttagcaaat gtctgcggca ccaatctcca 660
 tgttctgatt ctgtgtccca gtgaggggtc acactgggaa ctgctgctg ccctgtgggg 720
 aatcgttctc tttcctctgt tgtcgacct tcatggacct gactgagata ccagagatcg 780
 ccaaaacttc aggtgcagt tacggcgaca cttctgtcat ttgggggttag tgtctgattt 840

```

agcagtaaca ttatatctct ccatatcaga tcaaaggatt gtcctaaacc ttgtaaaaca 900
tcaatatagc cattaggggt atctgagaat ttacctaggt ctattttaat ttaaagtctg 960
ggagagaaaa aggcacatgc actctggctg ggccgaattc tcttccctcc actgctctg 1020
agagagaaaa aggtacgtgc actctggctg ggccgaattc tcttccctcc gcttggaggg 1080
ggcataatcg gggaatatcg gcattctttg gttagtgtt taccctttg tctatctcct 1140
tttggaccgt ttgggttgaa ggggggtcct tattatttgg ggaaggagt tgggggatgc 1200
tggggtaggg aggtagactc tgagggcttc ctgtagggca taaatcacac tttttacata 1260
attgctgagt gtctcttaat gaaaagaaag tttgtacgta tgacacttca caccatttgc 1320
cttcttttct acaaaaagagg tctagctgta agatggtgtt ataatttatg cttccctcag 1380
gatgccaggt ttctccccct taaagagtat atcggtgcca ggcggtactg cagaagaata 1440
tgtctttttt ttcttagcat ctgagagtca aattggtccc aattctcca 1489

```

<210> 7
 <211> 1216
 <212> ADN
 <213> Homo sapiens

```

<400> 7
taaagataca gggattgaaa tgtatggcct gaagtgcagg gtcatatagg tctgggtggg 60
gaaaatgggg tttccttttag aaaaactcct atagcatggg tcatcaatat ttccaggaag 120
ccgcattctc catagaagct cttggtaatg ggagctactg gtagtacagt ggcattggagg 180
gggtgcagtg agagtgaag agggtaaaag aacagtaaaag agaaaaatat gataaggagg 240
gggttcagtg agagtgaag ggggtaagag aacagtaaaag aaaaaatat gacaaggagg 300
gccatgagga tctacgattc tagttacttt cctcacggtt gtcgcttgaa gagcaggtgc 360
agatcctcta gaggttcaca ggaatagcta gcgttgtctc ctggattttc gggttccttt 420
ggcagtatac agagtttgac tcgagtgtga tgtattcaag actccactcc agccacttta 480
accgcagttg gggtagataa aatgactggg tagggctcct cccaggatgt atctaaggat 540
ggggacttag aaggaaggga cttgactaat accatgtcac cagggtgcaa taattacttt 600
ccctcttctc ggggaacagg tccctgtaat gttttaagaa cttgttgata ttggccaag 660
gaggtgatgt ctgcaactaa gctggccatc tctcggtcaa gcacaaggct cttggttagg 720
aagggccatc catacagcat tttgtatggg ctaagtccctg ctttttgggg agagttttgg 780
attcttagta aggctgtagg caacagagca ggccatgcaa ggtgggtttc ttgggttagc 840
ttttttaaag gtcgtttgag tgcttcattc attttcttga ctttctctga ggattgtggc 900
ctccacgcgc agtgaagtg atattgtatg cctaattgct gggatactcc ctgggttact 960
gtagccttga aaacggggcc attgtcactc tgtaagcctc ggggaagtcc gaatctggga 1020
attatttcat gaattagtgc ctttattaca tcttggtcct tttctgtcct acaaagggaag 1080
gcctctgccc aaccagtga aatatctacc cagactagta gatactgaaa tccctgagat 1140
ttgggcatgt gggtaaaatc tagttgccag tcttctcctg agtaatggcc tgttctttgt 1200
tctcctgaag gagctt

```

<210> 8
 <211> 976
 <212> ADN
 <213> Homo sapiens

```

<400> 8
agtgataatg gaatacttga aagtaatccc ctcaactccag gaactagtgc tgagctggcc 60
aaactaatag ccctcactcg ggcactagaa ttaggagaag agaaaagggt aaatatatat 120
acagactata agtatgctta cctagtcctt catgcccattg cagcaatatg gagagaaagg 180
gaattcctaa cttccaaagg aacacctatc aaacatcagg aagccattag gatattatta 240
ttggtggtac agaaacctaa agaggtggca gtcctacact gctgggggtca tcagaaaaaa 300
aaggaaaggg aaatagaagg gaactacca gcatatattg aagccaaaag agccgcaagg 360
caggaccctc cattagaaat gcttatagaa ggacccttag tgtggggtaa cccctccag 420
gaaagcaatc cccagtactc agcaggagaa ataaaatgga gaacctcacg aggacatact 480
ttcctccccct caggatggct agccaccaa gaaggaaaaa tgcttttgcc tgcagctaac 540
caatggaaat tacttaaaac ctttaccac acccttccact taggattgat agcaccctac 600

```

9

```

agatggccaa attattattt actggatcag gccttttcaa aactatcaa9 caggtagtca 660
gggcctgtaa agtgtgccaa agaaataatc tcctgactg caagccatac atttcaatcc 720
ctgtatcttt aacctccttg ttaagtttgt ctctccaga atcaaagctg taaaactaca 780
aatgggtctt caaatggagt ctcatatgca gtccatgact aagatatacc gcagccccct 840
ggagggggcc tgctagccca tgctccaatg ttaatgacat cgaaggcacc cctccggggg 900
aaatctcaac tgcacaaccc ctactatgtc ccaattcagc aggaagcagt taaagcggtc 960
atcggccaac ctcccc

```

```

<210> 9
<211> 942
<212> ADN
<213> Homo sapiens

```

```

<400> 9
agaggagaac agcagcataa gcggctggca gaggtaggga aagaccagca agaagaaaag 60
agagaaaagag aaagagaaaag tcagagaaaag agacagagag aggaagagac aaagagacag 120
aaagtcaaaag aggtagtagt cagaaaacaga gacaaaaaaa aggagtccaga aagagggaca 180
gacacagaaa gtcaaaaaaaa aagttaagaa gaaaggaaaa gacaaagaag aagtcgaaga 240
ggagaaaagag agagatagaa gtagtaaaaga aaaaaaacagc atatcccat cctttaaagc 300
cagggtaaat ttctatctac ccagccaagg catattctac ttatgtggat cttcaacca 360
tatctgcctc tcagacagtt tgcaagaaat aatgaaatct atccttactt tacaatccca 420
aatagactct ttggcagcag tgactctcca aaactgcaga ggcctagacc tcctcactgc 480
tgaaaaagga ggacactaca ccttcttagg ggaagaatgt tgtttttaca ctaaccagtc 540
gggatagta tgagatgctg cccggagttt acaggaaaag gcttctgaaa tcagacaacg 600
cctttcaaat tcttatacca acttctggag ttaggcaaca tggcttctcc cctttctagg 660
tcctgtggca gccatcttgc tgttactcgc ctttgggccc tgtattttta accttcttgc 720
caaatttgtt tcctctagaa tcgaggccat caagctacag atgggtcttac aaatggaacc 780
ccaaaagagt tcaactaaca acttctaccg aggaccctg gatcaaccca ctggcacttc 840
ccctggccta gagagttccc ctctgaagga caccgcaact gpaaggccct tctttgcccc 900
atccagcagg agtagctaga gtggtcatcg gccaaattgc ca 942

```

```

<210> 10
<211> 1375
<212> ADN
<213> Homo sapiens

```

```

<400> 10
ccccaatatt ctctttctga tggggaaaaa tggccacctg aggggaagcac aaattacaat 60
actatcctgc agcttgatct tttctgtaag aggggaaggca aatggagtga aataccttat 120
gtccaagctt tcttttcatt gaggggagaat acacaactat gcaaagcttg caatttacat 180
cccacaggag gacccctcag cttaccccca taccctagcc tccctatagc ttcccttcct 240
attgatgata ctctctctct aatctcccct gcccagaagg aaataagcaa agaaatctcc 300
aaagggtccac aaaaaccccc gggctatcgg ttatgtcccc ttcaagctgt agggggaggg 360
gaatttggcc caaccggggt gcatgtcccc ttctccctct ctgattttaa gcagatcagg 420
cagacctggg gaagttttca gatgatcctg ataggtacat agatgtccta cagggtctag 480
ggcaaaccct tgacctcact tggagagacg tcatgctact gtagatcaa accctggcct 540
ttaatgaaaa gaatgcggct ttagctgcag cctgagagtt tggagatacc tggatccta 600
gtcaagtaaa tgaaagaatg acagccgaag aaagggacaa cttccctact ggtcagcaag 660
ccatccccag tatggatccc cactgggact ttgactcaga tcatggggac tggagtcgta 720
aacatctggt gatctgtgtt ctggaaggac taaggagaat tgggaaaaag cccatgaatt 780
attcaatgat atccaccata acccagggaa aggaagaaaa tccttctgcc ttcctcgagc 840
ggctacaaga ggccttaaga aaatatactc ccctgtcacc cgaatcactc gagggccaat 900
tgattctaaa agataagttt attacccaat cagccacaga tatcaggaga aagctccaaa 960
agcaagccct gagccctgaa caaaatctag agacattatt aaacctggca accttgggtg 1020
tctataatag ggaccaagag gaacaggccc aaaaggaaaa gcgagatcag agaaaggccg 1080
cagccttagt catggccctc agacaaacaa accttggtgg ttcagagagg tcagaaaatg 1140

```

09710554.01804

10

gagcaggcca	atcacctggt	acggccttgtt	atcagtgcg	tttactagga	cacttttaaaa	1200
aagattgtcc	aataagaaac	aagctgcccc	ctcatccgtg	tccactatgc	cgaggcaatc	1260
actggaaggt	gcaactgccc	agaggatgaa	ggttccctgg	gttagaagcc	cccaaccaga	1320
tgatccaaca	acaggactga	gggtgcccgg	ggcaagcacc	agctcatgtc	atcac	1375

<210> 11

<211> 944

<212> ADN

<213> Homo sapiens

<400> 11

acctaggagg	aactgtcttc	aggacaggac	tatagatgct	tcctcccagg	cgattaaggg	60
aaaaagacac	aatgggtatt	cagtaagtga	taaggaaaact	cttgtagaag	cagagttagg	120
aaaattgcct	aataattggt	ctgctcaaact	gtgcgagctg	tttgcaactca	gccaaacctt	180
aaaagtatta	cagaatcagg	aagaagccat	ctataccaat	tctaagttaa	tatggactga	240
acgagaactt	attaatagca	aagaataatt	gaaatcccaa	acttacaagg	ttttcaacaa	300
aagcacagtt	tgctaaaagt	taactgtgta	acatgtatta	tcctactacc	acaaactctc	360
aaatgatttc	tcagacagtt	tgcaagaaac	aatgaaacct	atccttactc	tacaatccca	420
aatagactct	ttggcagcag	tgactctcca	aaaccaccaa	ggcctagacc	tcctcactgc	480
tgagaaaagg	ggactctgca	ccttcttagg	ggaagattgt	tgtttttaca	ctaaccagtc	540
agggatagtg	tgagatgcc	cccagcgttt	acaggaaaag	gcttctgaaa	tcagacacaa	600
tgcttttcaa	accttatagc	aacctctgga	gttcggcgac	tggttttccc	cctttctagg	660
tcctgtgaca	gccatcttgc	tattactcgc	cttcgggccc	tgatatttta	acctcctcgt	720
caaatttggt	tcctctagga	tcgaggccat	caagctacag	atggctcttac	aaatggaacc	780
ccaaattgagc	tcgactaaca	acttctactg	aggaccctcg	gaccgaccca	ctggcccttt	840
aactggctta	aagagtttcc	ctctggagga	cactacaact	gcaggggccc	ttctttgccc	900
catccacagg	aagttagcta	gagcagtcac	cacccaattc	ccaa		944

<210> 12

<211> 963

<212> ADN

<213> Homo sapiens

<400> 12

tacaggaacc	ccataatagc	tccttggcaa	attctattca	gtcccaactg	ctaggagtgg	60
cccatttgct	ctgaaccctc	aaatcatggg	aatgagaaat	gaatttagac	tgaccacagc	120
ccttatgagt	tttcagctac	aggggtgtat	agaaccctga	taaggagtct	tctttgtgtg	180
tggaagatcc	ttctatatct	gcctccccac	caactggaca	ggaacttgta	ctttagccta	240
catagtacct	cctgtgactt	atccttttca	gaagaggcag	tagctgtgcc	cattcatgct	300
aagcttcagc	cgagagcaat	ctcactactt	cctctattgg	ctgggttagg	atttactacc	360
acctaggaag	tggaactcaca	gcctagatga	aatctctctc	caacttactc	aaatccagga	420
ccaaatagac	tcattagcag	ctgtggttct	ccgaaccagt	gagcactaga	tctccaatct	480
cctcactgcc	gaaaggggag	gaacatgcct	ttttctgaac	aagggaatgt	gtttttatgt	540
caataaatca	ggcatagtga	gagatggaat	taaatgactt	caggatagag	ctagcagact	600
acatgggtgg	acaaccgaaa	ctacctcagg	gttctcacag	cctgttctcc	actggcttct	660
tccattttta	ggtcccttcc	ttatgattat	tctaggagta	acctttggcc	catgtctttt	720
cagttccttc	atcctttcgt	ttcttcctga	atagaatcaa	tgaaactaga	aatgttactg	780
cagatggaac	ctcagatgac	ttcaaccagc	acctattatc	aaggaccctc	aaaccagcct	840
gccgggccc	atccggacgt	tgacacccaa	accacctctc	acgaggaaac	ctcagctaca	900
gaaccccttc	tatgccccta	ttcagcagga	agcaattaga	gtgggtcatcc	tcccacaccc	960
caa						963

09719554-011601

<210> 13
 <211> 1362
 <212> ADN
 <213> Homo sapiens

<400> 13
 ccacaatatc ctcttccagg aggagaacga tggccacctg aggggaagtat acactataat 60
 accatcctgc aactagatct gttttgtaaa caagaaggca agtggattta ggtaccatat 120
 gttcagacct ttttctcatt aagggatgat aaccacgat tgtgtaagac atgtaacctg 180
 caccacacag ggagtcctca aattctaccc ccataccag tcctcccccac ggctcctcct 240
 actaatgcc aaccctctct ggcttctaca gcccaaaagg gaacaaataa aagagccttc 300
 agagagccaa gagacccac tggcccctgg ctatgtcctc ttcaggctgt aggaggggaa 360
 tttggcccaa cccgagtaca tgttcccttt tctctctctg atctaaagca aattaaggca 420
 gacttggatg aaagtctca gatgaccca atagatacgt agatggcctg ctgggtctgg 480
 gacaatcttt tgacctttcc tggagagaga tcatgttatt gcttgatcag acctaacctc 540
 taatgagaag aatgctgctt taacaggagc ccgagagttt ggggatacct ggtacctcag 600
 ttaagtaagt gatagaatga catcagaaga gagcagtttc ctactggcca gcaagcagtc 660
 cccagtatgg atccccactg ggaccctgac tcggatcatg gggactggag tcacaaacat 720
 ttactgacct gtatcctaga agggtaagg agaactagga aaaagcccat gaactattca 780
 atgatgtcta ctataaccca agggaaaggaa gaaaacccta ttgccttctt caaaaggctg 840
 agggaggctt tgagaaaata tactcccctg tcaccagatt ccctcgaagg ccagttaatt 900
 ttaaaggaca aattttattac tcagtcagct gcagacatta ggaaaaagct ccaaaagtta 960
 gccttggggc gagcaaaatt tggaggcatc attaaacctg gcaacctcag tgttctatca 1020
 tagggacca gaggaaacag ccgaaaagga aaagcaggat aagagaaagg ctgcagattt 1080
 agtcatgccc tcagacaaac cttggcgggt caaagaggag aaaaaatgga gcaggccaat 1140
 caccagcag ggcttattat cagtgcagtt tacaaggaca ctttaacaa gattgtccaa 1200
 agagaaataa gccgccctct caccatgtc cactatgcc aagtgatcac tggaaggcac 1260
 actgtcccag aggacaaagg ttctctgggc cagaagtcac caaccagatg atccagcaac 1320
 aggatggagg gtgcccgggg caagcaccag ctctgttgtt ca 1362

<210> 14
 <211> 945
 <212> ADN
 <213> Homo sapiens

<400> 14
 ttgcagatca atctcagact gctgtgctag caatgagtga ggcttcgtgg gcatgggacc 60
 ctctgagcca ggcatgggat ataatgtcct tgtgtgccat ttgctaagac tgttgggaata 120
 gcacagtatt aggggtgggag tggcccgtat ttccagggtg tgtctgtcac cgcttccctt 180
 ggctaggaaa gagaattccc tgacccttg ttcttcccag gtaaggcagt gcctcaccct 240
 gcttcagctc aactcaggt gactgcaccc actgtcctgc cccactgtc ggacaagccc 300
 cagtgaatg aacctggtac ctgagttgga aatgcagaaa tcacctgtct tctgcgtcac 360
 tcacactggg agctgtagac tggagctggt cctatttggc catcttgga ccactctcca 420
 aatagactct ttggcagcag tgactctcca aaaccaccaa ggcctagacc tcctcattgc 480
 tgagaaaagg ggactctgca ccttcttagg ggaggagtgt tgtttttata ctgaccagtc 540
 agggatggt aagatgcca cccgatgttt acaggaaaag gcttctgaaa tcacacaaca 600
 cctttcaaac tcttatacca acctctggag ttgggcaaca tggcttctcc cctttctcgg 660
 tcccattgca gccatcttgc tattactcgc cttcaggctg tgtattttta acctcctgt 720
 caaatttgtt tcctctagaa ttgagggcgt caagctacag atggctctac aaatgggacc 780
 ccaaatgagc tcaactaaca acttctgcca aggacccctg gaccaacctg ctggcccttt 840
 cactggcctt aagagtcccc ctctggaggg cactacaact gcaggggccc ttctttgccc 900
 ctatccagca ggaagtagct agagcagtc taccaccaatt cccaa 945

<210> 15
 <211> 939
 <212> ADN
 <213> Homo sapiens

<400> 15
 agagctacct tggcaagtac tctaggagta tgggaaaatg aaaacaacaa actcacacac 60
 cattttaaca tacacaatca ggtctgcccc cccagcaagg tatattcttt gtatgtggaa 120
 catcgaccta tatctgcctc cccactaact agacagccac ctgaatctta gtctttctaa 180
 gtcccaacag taacattgcc ccaggaaatc agaccatata agtatccctc aaagctcaag 240
 tctgtcagtg cagagccata caactaatac ccctacttat agggtaagga atggctactg 300
 ctacaggaac cagaatagct agtttgttta cttcattatc ctactaccac acactctcaa 360
 atgatttctc agacagtttg caagaaataa cgaaatctat ccttactcta caatcccaaa 420
 tagactcctt ggcagcagtg accctccaaa acggctgagg cctagacctc ctactgcca 480
 agaaaggagg actctgcatt ttcttagggg aagagtgttt ttacactaac cagtcaggga 540
 cagtatgaga tgccactcgg agtttacagg aaaaggcttc tgaagtcaga caatgcctt 600
 caaactctat accaaactct ggagttgggc aacatggctt ctccctttc taggtcccgt 660
 gacagccatc ttgctattat ttgcctttga gccctgtatt tttaatctcc ttttcaaat 720
 tgtttcctct ggatcgaggc catcgagcta cagatggctt tcacaaatgg aacccccaaa 780
 gagctcaact aacaacttct actgaggacc cctggactaa cctgctgacc ctttactctg 840
 cctgaagaat tccctctgg aggacactac aactgcaggg ctcttcttt gccctatcc 900
 agcaggaagt agctagagct gtcattgcct aattcctaa 939

<210> 16
 <211> 979
 <212> ADN
 <213> Homo sapiens

<400> 16
 agtgataatg gaataacttga aagtaatccc ctactcccc aggaactagt gctcagctgg 60
 cagaactaat agccctcact cgggtactag aatcaggaga aggaaaaagg gtaaatatat 120
 atacagactc taagtgtgct tacctagtcc tccatgcca tgcagcaata tggagagaaa 180
 gggaattcct aacttccgag ggaacaccta tcaaactca ggaagccatt aggaaattat 240
 tattggctgt acagaaacct aaagaggtgg cagttttaca ctgccggggg catcagaaa 300
 gaaaggaaag ggaaatacaa gggagccacc aagttgatat tgaagtcaaa agagccacaa 360
 ggctggaccc tccattagaa atgcttatag gaggaccctc agtatggggg aatccccctc 420
 gggaagccaa gccccagtac tcagcaggag aaatagaata gggaacttca tgaggacata 480
 ctctccctcc ctccagatgg ctagccacca ataaaggaaa aatacttttg ctgcagcta 540
 accaatagaa attacttaaa acccttcac aaaccttcca cttaggcatt gatagcacc 600
 atgagatggc caaattatta tttactggac caggcctttt caaaactatc aagcagatag 660
 tcagggcctg taaagtctgc caaagaaata atcccctgca ctgcaggcca tacatttcaa 720
 tccctgtatc tttaacctcc ttcttaaat tgtctcttcc agaatcaaa ctgtaaaaat 780
 acaaatagtt cttcaaatgg agccacagat gcagtcctat actaagatcc accacagacc 840
 cctggaccag cctgctagcc catgctccaa tgttaatgac atcgaaggca cccctcctg 900
 aggaaatctc aactgcacaa cccctactac gcccgaattc agcagaaagc agttagagtg 960
 gtcacagcc aacctcccc 979

<210> 17
 <211> 1774
 <212> ADN
 <213> Homo sapiens

<400> 17
 catgctggta aaggaccgct agaatccagc agccaggacc actttctttg tggtaagaa 60
 aggtgggaaa acaggtgcag gactgctaca ctggttaagca taactaatcc gataagcaga 120
 ggtccatggg tggttacgca ccctggaaaag gaataagcat taggactata gaggacactc 180

taggactaat gctcatcggg aaatgactag gggactggtg atccctatgt tcttttttca 240
 gatgggaaat gttcccccca aggcagaaat gccctaaga tgtattctgg agaaatggga 300
 ccaatctgac catcagacac taagaaagaa atgacttata ttcttctgca gtaccacctg 360
 gccacaatat ctcttcaag gggcagaaac ctggcctcct gagggagta taaattataa 420
 caccatctta cagctagacc tctttttagt aaaagaaggc aaatggagtg aagtgccata 480
 tgtacaaact ttcttttcat taagagataa ctcccaatta tgtaaaaagt gtgatttatg 540
 ccctacagga agcctcaga gtctacctcc cgaccccgag aagaccccaa ctcttctcct 600
 aactaataag gacccccctt caaccctaat ggtccaaaag gagatagaca aaggggtaaa 660
 caatgaacca aagagtggca atattacacg attatactcg ctccaagcag tgggaggaga 720
 atttggccca gccagcgtgc atgtaccttt ttctctctca gatttaaagc aaattaaaaat 780
 agacctagggt aaattctcag ataacctga tggctatatt gatgttttac aagggttagg 840
 acaatccttt gatctgacat ggagagatat aatgttactg ctaaatcaga cactaaccct 900
 aaatgaaaaa agtgctgcca taacagcagc ctgagagtgt ggcgaactct ggtatctcag 960
 tcaggtcaat gataggatga caacagatga aagagaatga ttccccacag gccagcaggc 1020
 agttcccagt gtagacctc attaggacac agaatacaga cttggagatt ggtgccacag 1080
 acatttgcta acttgctgct tagaaggact aaggaaaact aggaagaagc ccatgaatta 1140
 ttcaatgatg tccccataaa cacagggaaa ggaagaaaat cctactgcc ttctggagag 1200
 actaagggaa ggattgagga agcatacctc cctgtcacct gactctatta aaggccaact 1260
 aatcttaaat gataagtta tcaactcagtc agctgcagag attaagaaaa aacttcaaaa 1320
 gtatgcctta gggccagagc aaaacttaga aacctactg aacttggcaa cctcagtttt 1380
 ttataataga gatcaggaag agcaggggaa tgggacaaat gggataaaaa aaaaaaaaaa 1440
 aggtgactgc ttttagtctg gccctcaggc aaatggactt tggaggctcc agaaaaggga 1500
 aaagctgagc aaattgaatg cctaacaggg ctgtcttcta gtgtggtcta caaggacact 1560
 ttaaaaaaga ttgtccaagt agaaacaagc tgcccccttg tccatgcccc ttatgtcaag 1620
 ggaatcactg gaaggccac tgccccagga gatgaaggct ctctgagtca gaagccacta 1680
 accagataat ccagcagcag gactgaggat gccaggggca agcgcagcc catgccatca 1740
 ccctcacaga gccttgggta tgcttgacca ttga 1774

<210> 18

<211> 938

<212> ADN

<213> Homo sapiens

<400> 18

tgtaggaaga actcccttca ggacaggaca atagatgggt cctcccaggt gattaaggaa 60
 aaaagacaca gtattcagta agtgataagg aaactcttgt agaagcagag ttagaaaaat 120
 tgcctaataa ttggtctgct caaatgtgtg agttgtttgc actcagccaa atcttaaagt 180
 acttacagaa tcaggaagca gccatctata ccaattctaa gttaatatgg actaaacgag 240
 gttttattag tagcaaagaa aaattaaaat cccaaactta caagggtttc aactaaagt 300
 tgccaaaagt taacagtgtg acatgtatta tctactatc acacactctc aaaggatttc 360
 tcagacagtt tgcaagaaat aacgtaatct atccttactc tacagtccca aatagactct 420
 ttggtagcag tgactctcca aaactgccga ggtctagacc tctcaatgc tgagaaagga 480
 gaactctgca ccttcttagg ggaagagtgc tgtttttaca ctaaccagtc agggatagta 540
 tgagatactg cctgacgttt acaggaaaag gcttctgaaa tcagacaacg cctttcaagc 600
 tcttatacca acctctggag ttgggcaaca tggcttctcc ccttgctagg tctgtggca 660
 gccatcttgc tattacttgc cttcggggcc tgtattttta acctccttgt caaatttgtt 720
 tctctagga tcaaggccat caagctacag atggtcttac aaatggaacc ccaaatgagc 780
 tcaactaaca acttctactg aggacacctg gactgaccca ctggcccttt cactggccta 840
 aagagttccc ttctggagga cactacaact gcagggcccc gtcttcaccc ctatccagca 900
 ggaagtagct agatcagtca ttgcccaatt cccaacag 938

<210> 19

<211> 1308

<212> ADN

<213> Homo sapiens

<400> 19

```

gatgcttgcc ccaggcaccc tcagtcctgt tgttggatca tctggtcggg ggcttctggc 60
ccaaagaacc ttgtctctct gaggcagtcg acctccagt gattgcctca gcattgtgga 120
catgggcaag ggggcagctt gtttctcact ggacaatctt ttttaagggtg tccttccaaa 180
ccacactggg aacaagccct accaggtgat tggcctgctc tattttctgt cctctctgaa 240
ccaccaagggt ttgtctgtct gagggcatg actaaggctg tggcctttct ctgatcttgc 300
ttttcctttt tggcctgttc ctcttggtac ctattataga acactgaggt tggcagggtt 360
aacaatggct ccagattttg ttcagggcac agggctcatt ttggagcttt ctctgatat 420
ctgcagctga ttgggtaata aacttatctt ttaggatcaa ttgactctca agagagttgg 480
gtgacagggg agtatatttc cttgaggcct cccatagccg ctctaggaag gcagaaggat 540
tttcttcctt tccctgagtt ataaaagaca tcattgaaca actcatggac tttttcccaa 600
ttctccgtag tccttctaga acacaggtca gcagatgtt acgactccag tccccatgat 660
ctgagtctag acaccagtg ggtatccatac tggggatggc ctgctgactg gtagggaatt 720
tgtccctttc ttgggtgtc attctatcat ttacttgact aagataccaa gtatctccaa 780
attctcaggg tcgagctaaa gctgcattct tttcattaaa ggccagggtt tgatctaata 840
gcatgacatc tctccaagtg aggtcaaagg tttgccctag atccatagga catcagagaa 900
ggagaagggg acatacacct gagttagcca aattcccctc cctctacagc ttgaagggga 960
cataagcaat agcctgggga tttttgtggt cctttggaga tttctttgct tgtttccttc 1020
tgggtggggg agattagagg aggttatca gtaataggaa ggggagctat agggaggcta 1080
ggatattggg gtaagctgag aggtcatctt gtgggatgta aattgcaagc tttgcatagt 1140
tgtggatttt ccttacaatg aaaataaagc ttggacataa ggtatttcac tccatttgc 1200
ttcctcttta cagaaaagggt caagctgcag gatagtactg taatttatac ttccttcagg 1260
tggccatttc tcccatcag agagagaata ctggggctgg gccatagt 1308

```

<210> 20

<211> 711

<212> ADN

<213> Homo sapiens

<400> 20

```

actgagagac aggactagct ggatttccta ggccgactaa gaatccctaa gcctagctgg 60
gaaggtgacc acgtccacct ttaaaccacgg ggcttgcaac ttagctcaca cctgaccaat 120
cagagagctc actaaaatgc taattaggca aagacaggag gtaaagaaat agccaatcat 180
ctattgcctg agagcacagc aggagggaca acaatcgga tataaaccca ggcattcgag 240
ctggcaacag cagccccctt ttgggtccct tccctttgta tgggagctgt tttcatgcta 300
tttcaactta ttaaactctg caactgcact cttctggctc atgtttctta cggctcgagc 360
tgagcttttg ctcaccgtcc accactgctg tttgccacca ccgcagacct gccgctgact 420
cccaccctc tggatcctgc aggggtgtcg ctgtgctcct gatccagcga ggcgccatt 480
gccgctccca attgggctaa aggttgcca ttgttctgac acggctaagt gcctgggttt 540
gttctaattg agctgaacac tagtcaactg gttccatggt tctcttctgt gacccacggc 600
ttctaataga actataacac ttaccacatg gcccaagatt ccattccttg gaatccgtga 660
ggccaagaac tccaggtcag agaatacag gcttgccacc atcttgaag c 711

```

<210> 21

<211> 711

<212> ADN

<213> Homo sapiens

<400> 21

```

actgagagac aggactagct ggatttccta ggctgactaa gaatccctaa gcctagctgg 60
gaaggtgacc acatccacct ttaaaccacgg ggcttgcaac ttagctcaca cctgaccaat 120
cagagagctc actaaaatgc taattaggca aagacaggag gtaaagaaat agccaatcat 180
ctattgcctg agagcacagc aggagggaca atgatcgga tataaaccca agtcttcgag 240
ccggcaacgg caacccctt tgggtccct cctttgtat gggagctctg tttcatgct 300
attcaactct attaaatctt gcaactgcac tcttctggtc catgtttctt acggcttgag 360
ctgagctttc gctcgccatc caccactgct gtttgccgcc accgcagacc cgccgctgac 420

```

15

```

tcccatccct ctggatcatg caggggtgtcc gctgtgctcc tgatccagcg aggcacccat 480
tgccgctccc aatcgggcta aaggcttgcc attgttcctg catgggctaag tgccctgggtt 540
catcctaatt gagctgaaca ctagtcactg gggtccatgg ttctcttctg tgacccacag 600
cttctaataag agctataaca ctcaccgcat ggcccaaggt tccattcctt gaatccataa 660
ggccaagaac cccaggtcag agaacacgag gcttgccacc atcttgggag c 711

```

<210> 22
 <211> 2055
 <212> ADN
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(2055)

<400> 22

```

ccc aag aca gcc aac tta gtt gca gac atc acc tcc tta gcc aaa tat 48
Pro Lys Thr Ala Asn Leu Val Ala Asp Ile Thr Ser Leu Ala Lys Tyr
1 5 10 15

caa caa gtt ctt aaa aca tta caa gga acc tat ccc tga gaa gag gga 96
Gln Gln Val Leu Lys Thr Leu Gln Gly Thr Tyr Pro Glu Glu Gly
20 25 30

aaa gaa cta ttc cac cct tgt gac atg gta tta gtc aag tcc ctt ccc 144
Lys Glu Leu Phe His Pro Cys Asp Met Val Leu Val Lys Ser Leu Pro
35 40 45

tct aat tcc cca tcc cta gat aca tcc tgg gaa gga ccc tac cca gtc 192
Ser Asn Ser Pro Ser Leu Asp Thr Ser Trp Glu Gly Pro Tyr Pro Val
50 55 60

att tta tct acc cca act gcg gtt aaa gtg gct gga gtg gag tct tgg 240
Ile Leu Ser Thr Pro Thr Ala Val Lys Val Ala Gly Val Glu Ser Trp
65 70 75 80

ata cat cac act tga gtc aaa tcc tgg ata ctg cca aag gaa cct gaa 288
Ile His His Thr Val Lys Ser Trp Ile Leu Pro Lys Glu Pro Glu
85 90 95

aat cca gga gac aac gct agc tat tcc tgt gaa cct cta gag gat ttg 336
Asn Pro Gly Asp Asn Ala Ser Tyr Ser Cys Glu Pro Leu Glu Asp Leu
100 105 110

cgc ctg ctc ttc aaa caa caa cca gga gga aag taa cta aaa tca taa 384
Arg Leu Leu Phe Lys Gln Gln Pro Gly Gly Lys Leu Lys Ser
115 120 125

atc ccc atg gcc ctc cct tat cat att ttt ctc ttt act gtt ctt tta 432
Ile Pro Met Ala Leu Pro Tyr His Ile Phe Leu Phe Thr Val Leu Leu
130 135 140

ccc tct ttc act ctc act gca ccc cct cca tgc cgc tgt atg acc agt 480
Pro Ser Phe Thr Leu Thr Ala Pro Pro Pro Cys Arg Cys Met Thr Ser
145 150 155 160

```

0910554-01801
 10910554-01801

16

agc tcc cct tac caa gag ttt cta tgg aga atg cag cgt ccc gga aat	528
Ser Ser Pro Tyr Gln Glu Phe Leu Trp Arg Met Gln Arg Pro Gly Asn	
165 170 175	
att gat gcc cca tcg tat agg agt ctt tct aag gga acc ccc acc ttc	576
Ile Asp Ala Pro Ser Tyr Arg Ser Leu Ser Lys Gly Thr Pro Thr Phe	
180 185 190	
act gcc cac acc cat atg ccc cgc aac tgc tat cac tct gcc act ctt	624
Thr Ala His Thr His Met Pro Arg Asn Cys Tyr His Ser Ala Thr Leu	
195 200 205	
tgc atg cat gca aat act cat tat tgg aca gga aaa atg att aat cct	672
Cys Met His Ala Asn Thr His Tyr Trp Thr Gly Lys Met Ile Asn Pro	
210 215 220	
agt tgt cct gga gga ctt gga gtc act gtc tgt tgg act tac ttc acc	720
Ser Cys Pro Gly Gly Leu Gly Val Thr Val Cys Trp Thr Tyr Phe Thr	
225 230 235 240	
caa act ggt atg tct gat ggg ggt gga gtt caa gat cag gca aga gaa	768
Gln Thr Gly Met Ser Asp Gly Gly Gly Val Gln Asp Gln Ala Arg Glu	
245 250 255	
aaa cat gta aaa gaa gta atc tcc caa ctc acc cgg gta cat ggc acc	816
Lys His Val Lys Glu Val Ile Ser Gln Leu Thr Arg Val His Gly Thr	
260 265 270	
tct agc ccc tac aaa gga cta gat ctc tca aaa cta cat gaa acc ctc	864
Ser Ser Pro Tyr Lys Gly Leu Asp Leu Ser Lys Leu His Glu Thr Leu	
275 280 285	
cgt acc cat act cgc ctg gta agc cta ttt aat acc acc ctc act ggg	912
Arg Thr His Thr Arg Leu Val Ser Leu Phe Asn Thr Thr Leu Thr Gly	
290 295 300	
ctc cat gag gtc tcg gcc caa aac cct act aac tgt tgg ata tgc ctc	960
Leu His Glu Val Ser Ala Gln Asn Pro Thr Asn Cys Trp Ile Cys Leu	
305 310 315 320	
ccc ctg aac ttc agg cca tat gtt tca atc cct gta cct gaa caa tgg	1008
Pro Leu Asn Phe Arg Pro Tyr Val Ser Ile Pro Val Pro Glu Gln Trp	
325 330 335	
aac aac ttc agc aca gaa ata aac acc act tcc gtt tta gta gga cct	1056
Asn Asn Phe Ser Thr Glu Ile Asn Thr Thr Ser Val Leu Val Gly Pro	
340 345 350	
ctt gtt tcc aat ctg gaa ata acc cat acc tca aac ctc acc tgt gta	1104
Leu Val Ser Asn Leu Glu Ile Thr His Thr Ser Asn Leu Thr Cys Val	
355 360 365	
aaa ttt agc aat act aca tac aca acc aac tcc caa tgc atc agg tgg	1152
Lys Phe Ser Asn Thr Thr Tyr Thr Thr Asn Ser Gln Cys Ile Arg Trp	
370 375 380	

09719554-011801

gta	act	cct	ccc	aca	caa	ata	gtc	tgc	cta	ccc	tca	gga	ata	ttt	ttt	1200
Val	Thr	Pro	Pro	Thr	Gln	Ile	Val	Cys	Leu	Pro	Ser	Gly	Ile	Phe	Phe	
385					390					395					400	
gtc	tgt	ggc	acc	tca	gcc	tat	cgt	tgt	ttg	aat	ggc	tct	tca	gaa	tct	1248
Val	Cys	Gly	Thr	Ser	Ala	Tyr	Arg	Cys	Leu	Asn	Gly	Ser	Ser	Glu	Ser	
				405					410					415		
atg	tgc	ttc	ctc	tca	ttc	tta	gtg	ccc	cct	atg	acc	atc	tac	act	gaa	1296
Met	Cys	Phe	Leu	Ser	Phe	Leu	Val	Pro	Pro	Met	Thr	Ile	Tyr	Thr	Glu	
			420					425					430			
caa	gat	tta	tac	agt	tat	gtc	ata	tct	aag	ccc	cgc	aac	aaa	aga	gta	1344
Gln	Asp	Leu	Tyr	Ser	Tyr	Val	Ile	Ser	Lys	Pro	Arg	Asn	Lys	Arg	Val	
		435					440					445				
ccc	att	ctt	cct	ttt	gtt	ata	gga	gca	gga	gtg	cta	ggt	gca	cta	ggt	1392
Pro	Ile	Leu	Pro	Phe	Val	Ile	Gly	Ala	Gly	Val	Leu	Gly	Ala	Leu	Gly	
	450					455					460					
act	ggc	att	ggc	ggt	atc	aca	acc	tct	act	cag	ttc	tac	tac	aaa	cta	1440
Thr	Gly	Ile	Gly	Gly	Ile	Thr	Thr	Ser	Thr	Gln	Phe	Tyr	Tyr	Lys	Leu	
465					470					475					480	
tct	caa	gaa	cta	aat	ggg	gac	atg	gaa	cgg	gtc	gcc	gac	tcc	ctg	gtc	1488
Ser	Gln	Glu	Leu	Asn	Gly	Asp	Met	Glu	Arg	Val	Ala	Asp	Ser	Leu	Val	
				485					490					495		
acc	ttg	caa	gat	caa	ctt	aac	tcc	cta	gca	gca	gta	gtc	ctt	caa	aat	1536
Thr	Leu	Gln	Asp	Gln	Leu	Asn	Ser	Leu	Ala	Ala	Val	Val	Leu	Gln	Asn	
			500					505					510			
cga	aga	gct	tta	gac	ttg	cta	acc	gct	gaa	aga	ggg	gga	acc	tgt	tta	1584
Arg	Arg	Ala	Leu	Asp	Leu	Leu	Thr	Ala	Glu	Arg	Gly	Gly	Thr	Cys	Leu	
		515					520					525				
ttt	tta	ggg	gaa	gaa	tgc	tgt	tat	tat	gtt	aat	caa	tcc	gga	atc	gtc	1632
Phe	Leu	Gly	Glu	Glu	Cys	Cys	Tyr	Tyr	Val	Asn	Gln	Ser	Gly	Ile	Val	
	530					535					540					
act	gag	aaa	gtt	aaa	gaa	att	cga	gat	cga	ata	caa	cgt	aga	gca	gag	1680
Thr	Glu	Lys	Val	Lys	Glu	Ile	Arg	Asp	Arg	Ile	Gln	Arg	Arg	Ala	Glu	
545					550					555					560	
gag	ctt	cga	aac	act	gga	ccc	tgg	ggc	ctc	ctc	agc	caa	tgg	atg	ccc	1728
Glu	Leu	Arg	Asn	Thr	Gly	Pro	Trp	Gly	Leu	Leu	Ser	Gln	Trp	Met	Pro	
				565					570					575		
tgg	att	ctc	ccc	ttc	tta	gga	cct	cta	gca	gct	ata	ata	ttg	cta	ctc	1776
Trp	Ile	Leu	Pro	Phe	Leu	Gly	Pro	Leu	Ala	Ala	Ile	Ile	Leu	Leu	Leu	
			580					585					590			
ctc	ttt	gga	ccc	tgt	atc	ttt	aac	ctc	ctt	gtt	aac	ttt	gtc	tct	tcc	1824
Leu	Phe	Gly	Pro	Cys	Ile	Phe	Asn	Leu	Leu	Val	Asn	Phe	Val	Ser	Ser	
		595					600					605				

18

aga atc gaa gct gta aaa cta caa atg gag ccc aag atg cag tcc aag 1872
 Arg Ile Glu Ala Val Lys Leu Gln Met Glu Pro Lys Met Gln Ser Lys
 610 615 620

act aag atc tac cgc aga ccc ctg gac cgg cct gct agc cca cga tct 1920
 Thr Lys Ile Tyr Arg Arg Pro Leu Asp Arg Pro Ala Ser Pro Arg Ser
 625 630 635 640

gat gtt aat gac atc aaa ggc acc cct cct gag gaa atc tca gct gca 1968
 Asp Val Asn Asp Ile Lys Gly Thr Pro Pro Glu Glu Ile Ser Ala Ala
 645 650 655

caa cct cta cta cgc ccc aat tca gca gga agc agt tag agc ggt cgt 2016
 Gln Pro Leu Leu Arg Pro Asn Ser Ala Gly Ser Ser Ser Gly Arg
 660 665 670

cgg cca acc tcc cca aca gca ctt agg ttt tcc tgt tga 2055
 Arg Pro Thr Ser Pro Thr Ala Leu Arg Phe Ser Cys
 675 680 685

<210> 23
 <211> 28
 <212> PRT
 <213> Homo sapiens

<400> 23
 Pro Lys Thr Ala Asn Leu Val Ala Asp Ile Thr Ser Leu Ala Lys Tyr
 1 5 10 15
 Gln Gln Val Leu Lys Thr Leu Gln Gly Thr Tyr Pro
 20 25

<210> 24
 <211> 55
 <212> PRT
 <213> Homo sapiens

<400> 24
 Glu Glu Gly Lys Glu Leu Phe His Pro Cys Asp Met Val Leu Val Lys
 1 5 10 15
 Ser Leu Pro Ser Asn Ser Pro Ser Leu Asp Thr Ser Trp Glu Gly Pro
 20 25 30
 Tyr Pro Val Ile Leu Ser Thr Pro Thr Ala Val Lys Val Ala Gly Val
 35 40 45
 Glu Ser Trp Ile His His Thr
 50 55

<210> 25
 <211> 38
 <212> PRT
 <213> Homo sapiens

09719554.011801

19

<400> 25

Val Lys Ser Trp Ile Leu Pro Lys Glu Pro Glu Asn Pro Gly Asp Asn
 1 5 10 15

Ala Ser Tyr Ser Cys Glu Pro Leu Glu Asp Leu Arg Leu Leu Phe Lys
 20 25 30

Gln Gln Pro Gly Gly Lys
 35

<210> 26

<211> 540

<212> PRT

<213> Homo sapiens

<400> 26

Ile Pro Met Ala Leu Pro Tyr His Ile Phe Leu Phe Thr Val Leu Leu
 1 5 10 15

Pro Ser Phe Thr Leu Thr Ala Pro Pro Pro Cys Arg Cys Met Thr Ser
 20 25 30

Ser Ser Pro Tyr Gln Glu Phe Leu Trp Arg Met Gln Arg Pro Gly Asn
 35 40 45

Ile Asp Ala Pro Ser Tyr Arg Ser Leu Ser Lys Gly Thr Pro Thr Phe
 50 55 60

Thr Ala His Thr His Met Pro Arg Asn Cys Tyr His Ser Ala Thr Leu
 65 70 75 80

Cys Met His Ala Asn Thr His Tyr Trp Thr Gly Lys Met Ile Asn Pro
 85 90 95

Ser Cys Pro Gly Gly Leu Gly Val Thr Val Cys Trp Thr Tyr Phe Thr
 100 105 110

Gln Thr Gly Met Ser Asp Gly Gly Gly Val Gln Asp Gln Ala Arg Glu
 115 120 125

Lys His Val Lys Glu Val Ile Ser Gln Leu Thr Arg Val His Gly Thr
 130 135 140

Ser Ser Pro Tyr Lys Gly Leu Asp Leu Ser Lys Leu His Glu Thr Leu
 145 150 155 160

Arg Thr His Thr Arg Leu Val Ser Leu Phe Asn Thr Thr Leu Thr Gly
 165 170 175

Leu His Glu Val Ser Ala Gln Asn Pro Thr Asn Cys Trp Ile Cys Leu
 180 185 190

Pro Leu Asn Phe Arg Pro Tyr Val Ser Ile Pro Val Pro Glu Gln Trp
 195 200 205

Asn Asn Phe Ser Thr Glu Ile Asn Thr Thr Ser Val Leu Val Gly Pro
 210 215 220

09719554.011001

Leu Val Ser Asn Leu Glu Ile Thr His Thr Ser Asn Leu Thr Cys Val
 225 230 235 240
 Lys Phe Ser Asn Thr Thr Tyr Thr Thr Asn Ser Gln Cys Ile Arg Trp
 245 250 255
 Val Thr Pro Pro Thr Gln Ile Val Cys Leu Pro Ser Gly Ile Phe Phe
 260 265 270
 Val Cys Gly Thr Ser Ala Tyr Arg Cys Leu Asn Gly Ser Ser Glu Ser
 275 280 285
 Met Cys Phe Leu Ser Phe Leu Val Pro Pro Met Thr Ile Tyr Thr Glu
 290 295 300
 Gln Asp Leu Tyr Ser Tyr Val Ile Ser Lys Pro Arg Asn Lys Arg Val
 305 310 315 320
 Pro Ile Leu Pro Phe Val Ile Gly Ala Gly Val Leu Gly Ala Leu Gly
 325 330 335
 Thr Gly Ile Gly Gly Ile Thr Thr Ser Thr Gln Phe Tyr Tyr Lys Leu
 340 345 350
 Ser Gln Glu Leu Asn Gly Asp Met Glu Arg Val Ala Asp Ser Leu Val
 355 360 365
 Thr Leu Gln Asp Gln Leu Asn Ser Leu Ala Ala Val Val Leu Gln Asn
 370 375 380
 Arg Arg Ala Leu Asp Leu Leu Thr Ala Glu Arg Gly Gly Thr Cys Leu
 385 390 395 400
 Phe Leu Gly Glu Glu Cys Cys Tyr Tyr Val Asn Gln Ser Gly Ile Val
 405 410 415
 Thr Glu Lys Val Lys Glu Ile Arg Asp Arg Ile Gln Arg Arg Ala Glu
 420 425 430
 Glu Leu Arg Asn Thr Gly Pro Trp Gly Leu Leu Ser Gln Trp Met Pro
 435 440 445
 Trp Ile Leu Pro Phe Leu Gly Pro Leu Ala Ala Ile Ile Leu Leu Leu
 450 455 460
 Leu Phe Gly Pro Cys Ile Phe Asn Leu Leu Val Asn Phe Val Ser Ser
 465 470 475 480
 Arg Ile Glu Ala Val Lys Leu Gln Met Glu Pro Lys Met Gln Ser Lys
 485 490 495
 Thr Lys Ile Tyr Arg Arg Pro Leu Asp Arg Pro Ala Ser Pro Arg Ser
 500 505 510
 Asp Val Asn Asp Ile Lys Gly Thr Pro Pro Glu Glu Ile Ser Ala Ala
 515 520 525

21

Gln Pro Leu Leu Arg Pro Asn Ser Ala Gly Ser Ser
530 535 540

<210> 27
<211> 15
<212> PRT
<213> Homo sapiens

<400> 27
Ser Gly Arg Arg Pro Thr Ser Pro Thr Ala Leu Arg Phe Ser Cys
1 5 10 15

<210> 28
<211> 1080
<212> ADN
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(1080)

<400> 28
acc tct ttt gta gaa aag gca aat gga gtg aag tgc cat aag tac aaa 48
Thr Ser Phe Val Glu Lys Ala Asn Gly Val Lys Cys His Lys Tyr Lys
1 5 10 15

ctt tct ttt cat taa gag aca act cac aat tat gta aaa agt gtg att 96
Leu Ser Phe His Glu Thr Thr His Asn Tyr Val Lys Ser Val Ile
20 25 30

tat gcc cta cag gaa gcc ttc aga gtc tac ctc cct atc cca gca tcc 144
Tyr Ala Leu Gln Glu Ala Phe Arg Val Tyr Leu Pro Ile Pro Ala Ser
35 40 45

ccg act cct tcc cca act aat aag gac ccc cct tca acc caa atg gtc 192
Pro Thr Pro Ser Pro Thr Asn Lys Asp Pro Pro Ser Thr Gln Met Val
50 55 60

caa aag gag ata gac aaa agg gta aac agt gaa cca aag agt gcc aat 240
Gln Lys Glu Ile Asp Lys Arg Val Asn Ser Glu Pro Lys Ser Ala Asn
65 70 75 80

att ccc caa tta tga ccc ctc caa gca gtg gga gga aga gaa ttc ggc 288
Ile Pro Gln Leu Pro Leu Gln Ala Val Gly Gly Arg Glu Phe Gly
85 90 95

cca gcc aga gtg cat gtg cct ttt tct ctc cca gac tta aag caa ata 336
Pro Ala Arg Val His Val Pro Phe Ser Leu Pro Asp Leu Lys Gln Ile
100 105 110

aaa aca gac tta ggt aaa ttc tca gat aac cct gat ggc tat att gat 384
Lys Thr Asp Leu Gly Lys Phe Ser Asp Asn Pro Asp Gly Tyr Ile Asp
115 120 125

09719554.011801

22

gtt tta caa ggg tta gga caa ttc ttt gat ctg aca tgg aga gat ata	432
Val Leu Gln Gly Leu Gly Gln Phe Phe Asp Leu Thr Trp Arg Asp Ile	
130 135 140	
atg tca ctg cta aat cag aca cta acc cca aat gag aga agt gcc acc	480
Met Ser Leu Leu Asn Gln Thr Leu Thr Pro Asn Glu Arg Ser Ala Thr	
145 150 155 160	
ata act gca gcc tga gag ttt ggc gat ctc tgg tat ctc agt cag gtc	528
Ile Thr Ala Ala Glu Phe Gly Asp Leu Trp Tyr Leu Ser Gln Val	
165 170 175	
aat gat agg atg aca aca gag gaa aga gaa tga ttc ccc aca ggc cag	576
Asn Asp Arg Met Thr Thr Glu Glu Arg Glu Phe Pro Thr Gly Gln	
180 185 190	
cag gca gtt ccc agt cta gac cct cat tgg gac aca gaa tca gaa cat	624
Gln Ala Val Pro Ser Leu Asp Pro His Trp Asp Thr Glu Ser Glu His	
195 200 205	
gga gat tgg tgc tgc aga cat ttg cta act tgt gtg cta gaa gga cta	672
Gly Asp Trp Cys Cys Arg His Leu Leu Thr Cys Val Leu Glu Gly Leu	
210 215 220	
agg aaa act agg aag aag tct atg aat tac tca atg atg tcc acc ata	720
Arg Lys Thr Arg Lys Lys Ser Met Asn Tyr Ser Met Met Ser Thr Ile	
225 230 235 240	
aca cag gga agg gaa gaa aat cct act gcc ttt ctg gag aga cta agg	768
Thr Gln Gly Arg Glu Glu Asn Pro Thr Ala Phe Leu Glu Arg Leu Arg	
245 250 255	
gag gca ttg agg aag cgt gcc tct ctg tca cct gac tct tct gaa ggc	816
Glu Ala Leu Arg Lys Arg Ala Ser Leu Ser Pro Asp Ser Ser Glu Gly	
260 265 270	
caa cta atc tta aag cgt aag ttt atc act cag tca gct gca gac att	864
Gln Leu Ile Leu Lys Arg Lys Phe Ile Thr Gln Ser Ala Ala Asp Ile	
275 280 285	
aga aaa aaa ctt caa aag tct gcc gta ggc ccg gag caa aac tta gaa	912
Arg Lys Lys Leu Gln Lys Ser Ala Val Gly Pro Glu Gln Asn Leu Glu	
290 295 300	
acc cta ttg aac ttg gca acc tcg gtt ttt tat aat aga gat cag gag	960
Thr Leu Leu Asn Leu Ala Thr Ser Val Phe Tyr Asn Arg Asp Gln Glu	
305 310 315 320	
gag cag gcg gaa cag gac aaa cgg gat taa aaa aaa ggc cac cgc ttt	1008
Glu Gln Ala Glu Gln Asp Lys Arg Asp Lys Lys Lys Gly His Arg Phe	
325 330 335	
agt cat gac cct cag gca agt gga ctt tgg agg ctc tgg aaa agg gaa	1056
Ser His Asp Pro Gln Ala Ser Gly Leu Trp Arg Leu Trp Lys Arg Glu	
340 345 350	

09719554 011901

23

aag ctg ggc aaa ttg aat gcc taa
 Lys Leu Gly Lys Leu Asn Ala
 355 360

1080

<210> 29
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 29
 Thr Ser Phe Val Glu Lys Ala Asn Gly Val Lys Cys His Lys Tyr Lys
 1 5 10 15
 Leu Ser Phe His
 20

<210> 30
 <211> 63
 <212> PRT
 <213> Homo sapiens

<400> 30
 Glu Thr Thr His Asn Tyr Val Lys Ser Val Ile Tyr Ala Leu Gln Glu
 1 5 10 15
 Ala Phe Arg Val Tyr Leu Pro Ile Pro Ala Ser Pro Thr Pro Ser Pro
 20 25 30
 Thr Asn Lys Asp Pro Pro Ser Thr Gln Met Val Gln Lys Glu Ile Asp
 35 40 45
 Lys Arg Val Asn Ser Glu Pro Lys Ser Ala Asn Ile Pro Gln Leu
 50 55 60

<210> 31
 <211> 79
 <212> PRT
 <213> Homo sapiens

<400> 31
 Pro Leu Gln Ala Val Gly Gly Arg Glu Phe Gly Pro Ala Arg Val His
 1 5 10 15
 Val Pro Phe Ser Leu Pro Asp Leu Lys Gln Ile Lys Thr Asp Leu Gly
 20 25 30
 Lys Phe Ser Asp Asn Pro Asp Gly Tyr Ile Asp Val Leu Gln Gly Leu
 35 40 45
 Gly Gln Phe Phe Asp Leu Thr Trp Arg Asp Ile Met Ser Leu Leu Asn
 50 55 60
 Gln Thr Leu Thr Pro Asn Glu Arg Ser Ala Thr Ile Thr Ala Ala
 65 70 75

0974554-014504

24

<210> 32
 <211> 21
 <212> PRT
 <213> Homo sapiens

<400> 32
 Glu Phe Gly Asp Leu Trp Tyr Leu Ser Gln Val Asn Asp Arg Met Thr
 1 5 10 15
 Thr Glu Glu Arg Glu
 20

<210> 33
 <211> 142
 <212> PRT
 <213> Homo sapiens

<400> 33
 Phe Pro Thr Gly Gln Gln Ala Val Pro Ser Leu Asp Pro His Trp Asp
 1 5 10 15
 Thr Glu Ser Glu His Gly Asp Trp Cys Cys Arg His Leu Leu Thr Cys
 20 25 30
 Val Leu Glu Gly Leu Arg Lys Thr Arg Lys Lys Ser Met Asn Tyr Ser
 35 40 45
 Met Met Ser Thr Ile Thr Gln Gly Arg Glu Glu Asn Pro Thr Ala Phe
 50 55 60
 Leu Glu Arg Leu Arg Glu Ala Leu Arg Lys Arg Ala Ser Leu Ser Pro
 65 70 75 80
 Asp Ser Ser Glu Gly Gln Leu Ile Leu Lys Arg Lys Phe Ile Thr Gln
 85 90 95
 Ser Ala Ala Asp Ile Arg Lys Lys Leu Gln Lys Ser Ala Val Gly Pro
 100 105 110
 Glu Gln Asn Leu Glu Thr Leu Leu Asn Leu Ala Thr Ser Val Phe Tyr
 115 120 125
 Asn Arg Asp Gln Glu Glu Gln Ala Glu Gln Asp Lys Arg Asp
 130 135 140

<210> 34
 <211> 29
 <212> PRT
 <213> Homo sapiens

<400> 34
 Lys Lys Gly His Arg Phe Ser His Asp Pro Gln Ala Ser Gly Leu Trp
 1 5 10 15

09719554.014801

25

Arg Leu Trp Lys Arg Glu Lys Leu Gly Lys Leu Asn Ala
 20 25

<210> 35

<211> 685

<212> PRT

<213> Homo sapiens

<400> 35

Pro Lys Thr Ala Asn Leu Val Ala Asp Ile Thr Ser Leu Ala Lys Tyr
 1 5 10 15

Gln Gln Val Leu Lys Thr Leu Gln Gly Thr Tyr Pro Xaa Glu Glu Gly
 20 25 30

Lys Glu Leu Phe His Pro Cys Asp Met Val Leu Val Lys Ser Leu Pro
 35 40 45

Ser Asn Ser Pro Ser Leu Asp Thr Ser Trp Glu Gly Pro Tyr Pro Val
 50 55 60

Ile Leu Ser Thr Pro Thr Ala Val Lys Val Ala Gly Val Glu Ser Trp
 65 70 75 80

Ile His His Thr Xaa Val Lys Ser Trp Ile Leu Pro Lys Glu Pro Glu
 85 90 95

Asn Pro Gly Asp Asn Ala Ser Tyr Ser Cys Glu Pro Leu Glu Asp Leu
 100 105 110

Arg Leu Leu Phe Lys Gln Gln Pro Gly Gly Lys Xaa Leu Lys Ser Xaa
 115 120 125

Ile Pro Met Ala Leu Pro Tyr His Ile Phe Leu Phe Thr Val Leu Leu
 130 135 140

Pro Ser Phe Thr Leu Thr Ala Pro Pro Pro Cys Arg Cys Met Thr Ser
 145 150 155 160

Ser Ser Pro Tyr Gln Glu Phe Leu Trp Arg Met Gln Arg Pro Gly Asn
 165 170 175

Ile Asp Ala Pro Ser Tyr Arg Ser Leu Ser Lys Gly Thr Pro Thr Phe
 180 185 190

Thr Ala His Thr His Met Pro Arg Asn Cys Tyr His Ser Ala Thr Leu
 195 200 205

Cys Met His Ala Asn Thr His Tyr Trp Thr Gly Lys Met Ile Asn Pro
 210 215 220

Ser Cys Pro Gly Gly Leu Gly Val Thr Val Cys Trp Thr Tyr Phe Thr
 225 230 235 240

Gln Thr Gly Met Ser Asp Gly Gly Gly Val Gln Asp Gln Ala Arg Glu
 245 250 255

09719554101801

Lys His Val Lys Glu Val Ile Ser Gln Leu Thr Arg Val His Gly Thr
 260 265 270
 Ser Ser Pro Tyr Lys Gly Leu Asp Leu Ser Lys Leu His Glu Thr Leu
 275 280 285
 Arg Thr His Thr Arg Leu Val Ser Leu Phe Asn Thr Thr Leu Thr Gly
 290 295 300
 Leu His Glu Val Ser Ala Gln Asn Pro Thr Asn Cys Trp Ile Cys Leu
 305 310 315 320
 Pro Leu Asn Phe Arg Pro Tyr Val Ser Ile Pro Val Pro Glu Gln Trp
 325 330 335
 Asn Asn Phe Ser Thr Glu Ile Asn Thr Thr Ser Val Leu Val Gly Pro
 340 345 350
 Leu Val Ser Asn Leu Glu Ile Thr His Thr Ser Asn Leu Thr Cys Val
 355 360 365
 Lys Phe Ser Asn Thr Thr Tyr Thr Thr Asn Ser Gln Cys Ile Arg Trp
 370 375 380
 Val Thr Pro Pro Thr Gln Ile Val Cys Leu Pro Ser Gly Ile Phe Phe
 385 390 395 400
 Val Cys Gly Thr Ser Ala Tyr Arg Cys Leu Asn Gly Ser Ser Glu Ser
 405 410 415
 Met Cys Phe Leu Ser Phe Leu Val Pro Pro Met Thr Ile Tyr Thr Glu
 420 425 430
 Gln Asp Leu Tyr Ser Tyr Val Ile Ser Lys Pro Arg Asn Lys Arg Val
 435 440 445
 Pro Ile Leu Pro Phe Val Ile Gly Ala Gly Val Leu Gly Ala Leu Gly
 450 455 460
 Thr Gly Ile Gly Gly Ile Thr Thr Ser Thr Gln Phe Tyr Tyr Lys Leu
 465 470 475 480
 Ser Gln Glu Leu Asn Gly Asp Met Glu Arg Val Ala Asp Ser Leu Val
 485 490 495
 Thr Leu Gln Asp Gln Leu Asn Ser Leu Ala Ala Val Val Leu Gln Asn
 500 505 510
 Arg Arg Ala Leu Asp Leu Leu Thr Ala Glu Arg Gly Gly Thr Cys Leu
 515 520 525
 Phe Leu Gly Glu Glu Cys Cys Tyr Tyr Val Asn Gln Ser Gly Ile Val
 530 535 540
 Thr Glu Lys Val Lys Glu Ile Arg Asp Arg Ile Gln Arg Arg Ala Glu
 545 550 555 560

27

Glu Leu Arg Asn Thr Gly Pro Trp Gly Leu Leu Ser Gln Trp Met Pro
 565 570 575
 Trp Ile Leu Pro Phe Leu Gly Pro Leu Ala Ala Ile Ile Leu Leu Leu
 580 585 590
 Leu Phe Gly Pro Cys Ile Phe Asn Leu Leu Val Asn Phe Val Ser Ser
 595 600 605
 Arg Ile Glu Ala Val Lys Leu Gln Met Glu Pro Lys Met Gln Ser Lys
 610 615 620
 Thr Lys Ile Tyr Arg Arg Pro Leu Asp Arg Pro Ala Ser Pro Arg Ser
 625 630 635 640
 Asp Val Asn Asp Ile Lys Gly Thr Pro Pro Glu Glu Ile Ser Ala Ala
 645 650 655
 Gln Pro Leu Leu Arg Pro Asn Ser Ala Gly Ser Ser Xaa Ser Gly Arg
 660 665 670
 Arg Pro Thr Ser Pro Thr Ala Leu Arg Phe Ser Cys Xaa
 675 680 685

<210> 36
 <211> 360
 <212> PRT
 <213> Homo sapiens

<400> 36
 Thr Ser Phe Val Glu Lys Ala Asn Gly Val Lys Cys His Lys Tyr Lys
 1 5 10 15
 Leu Ser Phe His Xaa Glu Thr Thr His Asn Tyr Val Lys Ser Val Ile
 20 25 30
 Tyr Ala Leu Gln Glu Ala Phe Arg Val Tyr Leu Pro Ile Pro Ala Ser
 35 40 45
 Pro Thr Pro Ser Pro Thr Asn Lys Asp Pro Pro Ser Thr Gln Met Val
 50 55 60
 Gln Lys Glu Ile Asp Lys Arg Val Asn Ser Glu Pro Lys Ser Ala Asn
 65 70 75 80
 Ile Pro Gln Leu Xaa Pro Leu Gln Ala Val Gly Gly Arg Glu Phe Gly
 85 90 95
 Pro Ala Arg Val His Val Pro Phe Ser Leu Pro Asp Leu Lys Gln Ile
 100 105 110
 Lys Thr Asp Leu Gly Lys Phe Ser Asp Asn Pro Asp Gly Tyr Ile Asp
 115 120 125
 Val Leu Gln Gly Leu Gly Gln Phe Phe Asp Leu Thr Trp Arg Asp Ile
 130 135 140

09719554 011001

28

Met Ser Leu Leu Asn Gln Thr Leu Thr Pro Asn Glu Arg Ser Ala Thr
 145 150 155 160
 Ile Thr Ala Ala Xaa Glu Phe Gly Asp Leu Trp Tyr Leu Ser Gln Val
 165 170 175
 Asn Asp Arg Met Thr Thr Glu Glu Arg Glu Xaa Phe Pro Thr Gly Gln
 180 185 190
 Gln Ala Val Pro Ser Leu Asp Pro His Trp Asp Thr Glu Ser Glu His
 195 200 205
 Gly Asp Trp Cys Cys Arg His Leu Leu Thr Cys Val Leu Glu Gly Leu
 210 215 220
 Arg Lys Thr Arg Lys Lys Ser Met Asn Tyr Ser Met Met Ser Thr Ile
 225 230 235 240
 Thr Gln Gly Arg Glu Glu Asn Pro Thr Ala Phe Leu Glu Arg Leu Arg
 245 250 255
 Glu Ala Leu Arg Lys Arg Ala Ser Leu Ser Pro Asp Ser Ser Glu Gly
 260 265 270
 Gln Leu Ile Leu Lys Arg Lys Phe Ile Thr Gln Ser Ala Ala Asp Ile
 275 280 285
 Arg Lys Lys Leu Gln Lys Ser Ala Val Gly Pro Glu Gln Asn Leu Glu
 290 295 300
 Thr Leu Leu Asn Leu Ala Thr Ser Val Phe Tyr Asn Arg Asp Gln Glu
 305 310 315 320
 Glu Gln Ala Glu Gln Asp Lys Arg Asp Xaa Lys Lys Gly His Arg Phe
 325 330 335
 Ser His Asp Pro Gln Ala Ser Gly Leu Trp Arg Leu Trp Lys Arg Glu
 340 345 350
 Lys Leu Gly Lys Leu Asn Ala Xaa
 355 360

<210> 37
 <211> 26
 <212> ADN
 <213> Homo sapiens

<400> 37
 ggaccataga ggacactcca ggacta

26

<210> 38
 <211> 25
 <212> ADN
 <213> Homo sapiens

00719554 011801

<400> 38
cctcagtcct gctgctggat catct 25

<210> 39
<211> 27
<212> ADN
<213> Homo sapiens

<400> 39
cctccaagca gtgggaggaa gagaatt 27

<210> 40
<211> 28
<212> ADN
<213> Homo sapiens

<400> 40
ccttcctgt gttattgtgg acatcatt 28

<210> 41
<211> 30
<212> ADN
<213> Homo sapiens

<400> 41
ggaagaagtc tatgaattat tcaatgatgt 30

<210> 42
<211> 27
<212> ADN
<213> Homo sapiens

<400> 42
gggacacaga atcagaacat ggagatt 27

<210> 43
<211> 27
<212> ADN
<213> Homo sapiens

<400> 43
gccttcagaa gagtcaggtg acagaga 27

<210> 44
<211> 25
<212> ADN
<213> Homo sapiens

<400> 44
gagcctccaa agtccacttg cctga 25

<210> 45
<211> 29
<212> ADN
<213> Homo sapiens

<400> 45
gatttcagta tctactagtc tgggtagat

29

<210> 46
<211> 27
<212> ADN
<213> Homo sapiens

<400> 46
ctaggaaatc cagctagtc tgtctca

27

<210> 47
<211> 28
<212> ADN
<213> Homo sapiens

<400> 47
ccaagacagc caacttagtt gcagacat

28

<210> 48
<211> 28
<212> ADN
<213> Homo sapiens

<400> 48
ggacgctgca ttctccatag aaactctt

28

<210> 49
<211> 29
<212> ADN
<213> Homo sapiens

<400> 49
gcaatactac atacacaacc aactcccaa

29

<210> 50
<211> 26
<212> ADN
<213> Homo sapiens

<400> 50
gggggaggca tatccaacag ttagta

26

31

<210> 51
<211> 30
<212> ADN
<213> Homo sapiens

<400> 51
ccatctacac tgaacaagat ttatacactt

30

<210> 52
<211> 28
<212> ADN
<213> Homo sapiens

<400> 52
aatgccagta cctagtgcac ctagcact

28

<210> 53
<211> 31
<212> ADN
<213> Homo sapiens

<400> 53
cgaataacaac gtagagcaga ggagcttcga a

31

<210> 54
<211> 28
<212> ADN
<213> Homo sapiens

<400> 54
agcccaagat gcagtccaag actaagat

28

<210> 55
<211> 27
<212> ADN
<213> Homo sapiens

<400> 55
gcgtagtaga ggttgtgcag ctgagat

27

<210> 56
<211> 27
<212> ADN
<213> Homo sapiens

<400> 56
cccttaccaa gagtttctat ggagaat

27

<210> 57
<211> 27
<212> ADN
<213> Homo sapiens

<400> 57
accgctctaa ctgcttctctg ctgaatt

27

<210> 58
<211> 420
<212> PRT
<213> Homo sapiens

<400> 58
Thr Ser Phe Val Glu Lys Ala Asn Gly Val Lys Cys His Lys Tyr Lys
1 5 10 15
Leu Ser Phe His Xaa Glu Thr Thr His Asn Tyr Val Lys Ser Val Ile
20 25 30
Tyr Ala Leu Gln Glu Ala Phe Arg Val Tyr Leu Pro Ile Leu Pro Ala
35 40 45
Ser Pro Thr Pro Ser Pro Thr Asn Lys Asp Pro Pro Ser Thr Gln Met
50 55 60
Val Gln Lys Glu Ile Asp Lys Arg Val Asn Ser Glu Pro Lys Ser Ala
65 70 75 80
Asn Ile Pro Gln Leu Xaa Pro Leu Gln Ala Val Gly Gly Arg Glu Phe
85 90 95
Gly Pro Ala Arg Val His Val Pro Phe Ser Leu Pro Asp Leu Lys Gln
100 105 110
Ile Lys Thr Asp Leu Gly Lys Phe Ser Asp Asn Pro Asp Gly Tyr Ile
115 120 125
Asp Val Leu Gln Gly Leu Gly Gln Phe Phe Asp Leu Thr Trp Arg Asp
130 135 140
Ile Met Ser Leu Leu Asn Gln Thr Leu Thr Pro Asn Glu Arg Ser Ala
145 150 155 160
Thr Ile Thr Ala Ala Xaa Glu Phe Gly Asp Leu Trp Tyr Leu Ser Gln
165 170 175
Val Asn Asp Arg Met Thr Thr Glu Glu Arg Glu Xaa Phe Pro Thr Gly
180 185 190
Gln Gln Ala Val Pro Ser Leu Asp Pro His Trp Asp Thr Glu Ser Glu
195 200 205
His Gly Asp Trp Cys Cys Arg His Leu Leu Thr Cys Val Leu Glu Gly
210 215 220
Leu Arg Lys Thr Arg Lys Lys Ser Met Asn Tyr Ser Met Met Ser Thr
225 230 235 240
Ile Thr Gln Gly Arg Glu Glu Asn Pro Thr Ala Phe Leu Glu Arg Leu
245 250 255

T08T0"4556T260

Arg Glu Ala Leu Arg Lys Arg Ala Ser Leu Ser Pro Asp Ser Ser Glu
 260 265 270
 Gly Gln Leu Ile Leu Lys Arg Lys Phe Ile Thr Gln Ser Ala Ala Asp
 275 280 285
 Ile Arg Lys Lys Leu Gln Lys Ser Ala Val Gly Pro Glu Gln Asn Leu
 290 295 300
 Glu Thr Leu Leu Asn Leu Ala Thr Ser Val Phe Tyr Asn Arg Asp Gln
 305 310 315 320
 Glu Glu Gln Ala Glu Gln Asp Lys Arg Asp Xaa Lys Lys Gly His Arg
 325 330 335
 Phe Ser His Asp Pro Gln Ala Ser Gly Leu Trp Arg Leu Trp Lys Arg
 340 345 350
 Glu Lys Leu Gly Lys Leu Asn Ala Xaa Xaa Gly Leu Leu Pro Val Arg
 355 360 365
 Ser Thr Arg Thr Leu Xaa Lys Arg Leu Ser Lys Xaa Lys Xaa Ala Ala
 370 375 380
 Pro Ser Ser Met Pro Leu Ile Ser Arg Glu Ser Leu Glu Gly Pro Leu
 385 390 395 400
 Pro Gln Gly Thr Lys Val Leu Xaa Val Arg Ser His Xaa Pro Asp Ser
 405 410 415
 Ser Ser Arg Thr
 420

<210> 59
 <211> 32
 <212> ADN
 <213> Homo sapiens

<400> 59
 taaactacaa atggttcttc aaatggagcc ca

32

<210> 60
 <211> 32
 <212> ADN
 <213> Homo sapiens

<400> 60
 gatgcagtc aagatgcagt ccatgactaa ga

32

<210> 61
 <211> 1740
 <212> ADN
 <213> Homo sapiens

09719554.011301

<400> 61
 aggttggtcg acaaccgctc ttaactgctt catgctgaat tggggcatag taggggtcgt 60
 gcagttgaga tttccttggg aggggtgcct tcaatgtcat caacattgga gcatgggcta 120
 gcaggccagt ccagggttcc gcggtagatc ttagtcatgg actgcatctg gggctccatt 180
 tgaagaacca tttgtagttt tacagcttcg attctggaag agacaaacgt aacaaggagg 240
 ttaaagatac aaggattgaa atgtacggcc tgaagtgcag gggcatatga gtgtgggagg 300
 tgcaagtggg gtttccttta gaaaaactcc gatacaatag ggcatacaata tttctaggaa 360
 gccacattct ccatagaagc tctcggttaag gggagctact ggtagtacag cagcatacag 420
 ggggtgcagt gagagtgaag gggggttaaga gaacagttaa aagaaaaata tgacaaggga 480
 gggccaagag gatctacgat tctagttact ttctcacgg ttgtcgctcg aagagcaggc 540
 gcagatcctc tagaggttca caggaatagc tagcattgtc tgctggattt tcgggttccct 600
 ttggcagtat ccagggtttg gctcagtggt gacttatcca agactccact ccagccactt 660
 aactgcggtt agggtagata aaatgactgg gtagggtcct tcccaggatg tgtgtaggga 720
 tggggaatta aagggggaagg gacttgacta ataccatgtc accagggtgg aataattcct 780
 ttccctcctc tcagggacag gttccctgta atgttttaag aactcgttga tatttggcta 840
 aggaggtgat gtctgcaact aagttggccg tctctcagtc aagcacaagg tcattgggta 900
 ggaagggtcg tccatacagc atctcatatg gactaagtcc tgcttttttg ggacagtttc 960
 ggattcttag taaggctata ggcaacagag caggccatgc aaggtgggtt tcttgggta 1020
 gcttttttag atgtcgtttg agtgtttcat tcattttctc aacttttccct gaggatcgtg 1080
 gcctccaggc acagtgttaag tgatattgta tacctaacgc ctgggatact ccctgcgta 1140
 ctgcagcctt gaaattgggg ccattgtcac tctgtaaacc tcagggaagt ccgaatctgg 1200
 gaattatttc atgaattagt acttttatta cctcttgggc cttttctgtc ctacaaggga 1260
 aggcctccac ccaaccagtg aaagtaccca gattagtaga tactgaaatc tctgagattt 1320
 gggcatgtgg gtaaaatcta gttgctagtc ttctcctggg taatggcctg ttctttgttc 1380
 tcctgaaggga gcttggaat aaggcagggg attatttctt tggcacactt cacaggccct 1440
 gactatctgc ttgacagttt tgaaaaggcc tgggccagta aataatgatt tggccactcg 1500
 atgggtcgtg tcaatgccta agtgaaagggt ctggtgaagg gttttaagta atttccattg 1560
 gttagctgca ggcaaaagta ttttttcttt ggtggctggc catcctgagg agaggaaact 1620
 atgtcctcgt gagtttcccc attccatttc ttctgctgag tactggagct tggtttccca 1680
 gaggggatta cccatacta ggggtccttc tgtaagcatt tctaattggag agtcctgcct 1740

<210> 62
 <211> 7140
 <212> ADN
 <213> Homo sapiens

<400> 62
 ttggtcttaa gaacacaaat gatatggctc caatgactgg aggaacacca gggctccttg 60
 tctcacgctg atttagataa aacgactgtc aggcctctga gccaagcta agccatcctc 120
 ccctgtgacc tgcacgtata catccagatg gcctgaagta accaaagaat cacaaaagca 180
 gtgaaaatgg cctgttcctg ccttaactga tgacattcca ccatttgtat ttgttcctgc 240
 cccatcttaa ctgagcgatt aaccttgtga aattccttct cctggctcaa aacctcccc 300
 actgagcacc ttgtgacccc cgcccctgcc cctaagagaa aacccccctt gattataatt 360
 ttccactacc caccacaaatc ctataaaatg gccccacccc tatctccctt cgctgactcc 420
 tttttcggac tcagcccgcc tgcacccagg tgaaataaac agccttggtg ctcacacaaa 480
 gcctgttttg tggactctct tcacacggac gctcatgaca tttggtgcca aaacctggga 540
 taggaggact ccttcaggag accagtcccc tgtccttgcc ctcaactctg gaggacatcc 600
 acctacaacc ttgggtcctc agaccaacca gcccaaggaa cagctcacca atttcaaat 660
 aggtaagcag tcttttctct ctcttctcca gcctctcttg ctacccttca aactccctct 720
 ctcaactacc tccaactctc ctgtccttcc aattccagtt ctttttctat tctagtagag 780
 acaaaggaga cacattttat ccatggaccc aaaactccag caccagtcac ggacttggga 840
 agacagtctt cccttggtgt ttaatcactg cggggacgcc tgcctgatta ttcaccaca 900
 ctccattggg gtctgatcac ggtggggaca cctgccttgg tcaactaccc acattccctt 960
 ggtggtacgt caactgcaaa agcaggggac gcctgctttg gctgctcacc caccctctt 1020
 tctgtgtctc tacctttctc tttaaactta cctccttcc tatgggcaaa cttctgcct 1080
 ccattccccc ttcttctccc ttagcctgtg ttcttaaaaa cctaaaacct cttcaactca 1140

cacctgacct	aaaaccta	tgccctatt	tcttctgcaa	cactgctgg	ctgcagtaca	1200
aacttgataa	tagcttttaa	tggccagaat	atggcacttt	caatttctcc	atcctacaag	1260
atctagataa	tttttgtgga	aaaatggaaa	aatggctctga	gatgcctgac	gtccaggcat	1320
tctttttacac	attgggtccct	ccctagctctc	tgctcccaat	gcgactcacc	ccaaatcttt	1380
cttcttttctc	tccgtctgtg	tccttcagtc	tccaccccaa	gctctgagtc	ctttgaaatcc	1440
tccttttgcta	cagacccatc	tgaactctcc	cctcctcccc	aggctgctcc	tcaccaggec	1500
gagccaggtc	ccaattcttc	ctcagcctct	gctccccac	cctataatcc	ttttatcacc	1560
tcctctcctc	acactcagtc	cggcttacag	tttcgttctg	tgactagccc	tcccccatct	1620
gcccacaat	ttcctcttaa	agagggtggc	ggagctaaag	gcatagtcaa	ggttaatgct	1680
cctttttctt	tatctgacct	ctcccaaate	agtttagcgt	tacgctcttt	ttcatcaaat	1740
ataaaaaacc	agccagttca	tggcccatct	ggcaacaacc	cttacaggct	ttacagccct	1800
agaccctgaa	gggtcagaag	gccgtcttat	tctcaatatg	cattttatta	cccaatccgc	1860
tcccaacatt	aaataaagct	ccaaaaatta	aattctggcc	ctcaaaccac	acaacaggac	1920
ttaatttaacc	tcacttcaag	gtgtacaaga	atagagtaga	ggcagccaag	tagcaacgta	1980
tttgagttgc	aattccttgc	ctcaactctg	agagaaaccc	cagccacatc	tccagcaaac	2040
aagaacttca	aaacacctga	actgcagcag	ccaggcgttc	ctccaggacc	acctccccca	2100
ggatcctgct	tcaagtgcgc	gaaatctgac	cattggggcca	aggaatgcct	gcagcccagg	2160
attcctccta	agccacgtcc	catttgtgca	ggaccccact	ggaaatcgga	ctgtccaact	2220
caccgagcag	ccaatcccag	agcccctgga	actctggccc	aaggctctct	gactgactcc	2280
ttcccagatc	ttctcggctt	agcagctgaa	gactgacact	gcccgatcac	ttcagaagtc	2340
ccctggacca	tcacggatac	tgagcttcag	gtaactctca	cagtggaggc	taagtccatc	2400
ccctgtttaa	tcgatacagg	ggctaccac	tccacatcac	cttcttttca	agggcctgtt	2460
tccctttccc	ccataactgt	tgtgggtatt	gacggccaag	cttcaaaacc	ccttaaaact	2520
ccccactct	ggtgccaact	tggacaacat	tcttttatgc	actctttttc	agttatcctc	2580
acctgcccag	ttcccttatt	aggccgagac	attttaacca	aattatctgc	ttccccgact	2640
attcctgggc	tacagccaca	tctccttgcc	gcccttcttc	ccaacccaaa	gcctccttca	2700
tatcttcctc	tcatatcccc	ccaccttaac	ccacaagtat	gggacacctc	tactccctcc	2760
ctggcaaccg	atcacacgcc	cattactatc	ccattaaaac	ctaaticacc	ttaccctgtg	2820
caatgccagt	atcccatacc	acaacaggct	ttaagggat	tgaagcctgt	tatcacttgc	2880
ctgctacagc	acgggcttct	aaaacctata	aactctccat	acaattcccc	cattttacct	2940
gtctaaaaaac	cagataagtc	ttacagggtta	gttcagaatc	tgcaccttat	caaccaaatt	3000
gttttgcccta	tccaccctgt	agcaccacaac	tcgtacactc	ttttgtcctc	aatgccttcc	3060
cccacaactc	actattccgt	tcttgatctt	aaagatgctt	ttttcactat	tcccctgcac	3120
ccctcatccc	agcctctctt	tgcttttacc	tggactgacc	ctgacaccca	tcagtcaccg	3180
cagcttacct	gggctgtact	gccgcaaggc	ttcagggaca	gccctcatta	cttcagccaa	3240
gctctttctc	atgatttact	ttctttccac	ctctctgctt	ctcaccttat	tcaatatatt	3300
gatgaccttc	tactttgtag	cccctccttt	aaatcttctc	aacaagacac	cctcctgctc	3360
cttcaacatt	tgttctccaa	aggatatcgg	gtatccccct	ccaaagctca	aatttcttct	3420
ccatctgtta	catacctcgg	cataattctt	catgaaaaca	catgtgctct	ccctgccaat	3480
tgcgtctcca	actgatctct	caaatcccaa	cctcttctac	aaaacaacaa	ctcctttccc	3540
tcctaggcat	ggttggatac	ttttgccttt	ggatacctgg	ttttgccatc	ctaacaaaaa	3600
cattatataa	actcacaaaa	ggaaacctag	ctgaccccat	agattctaaa	tcctttcccc	3660
actcctcttt	ccattccttg	aagacagctt	tagagactgc	tcccacacta	gctctccctg	3720
tctcatccca	acccttttca	ttacacacag	ccgaagtgca	gggctgtgca	gtcgggaattc	3780
ttacacaagg	accgggacca	tgccctgtag	cctttttgtc	caaacaactt	gaccttactg	3840
ttttaggctc	gccatcatgt	ctccatgcgg	tagcttccgc	tgccctaata	cttttagagg	3900
ccctcaaaat	cacaaaactat	gctcaactca	ctctctacag	ctctcacaa	ttccaaaaatc	3960
tattttcttt	ctcacacctg	acgcatatac	tttctgctcc	ccggctcctt	cagctgtatt	4020
cactctttgt	tgagtctccc	acaattacca	ttcttcctgg	cccagacttc	aatctggcct	4080
cccacattat	tctggatacc	acacctgacc	ctgatgattg	tatgtctctg	atctacctga	4140
cattcacccc	atttccccat	atttccttct	tttctgttcc	tcatgttgat	cacatttggg	4200
ttactgacgg	cagttccacc	aggcctgac	gccactcacc	agcaaaaggca	ggctatgcta	4260
tagaatcttc	cacatccatc	attgaggcta	ctgctctgcc	cccctccact	acctctcagc	4320
aagccgaact	gattgcctta	actcgggcct	tcactcttgc	aaagggacta	cacgtcaata	4380
tttatactga	ctctaaatat	gccttccata	tcttgacca	ccatgctgtt	atatgggctg	4440
aaagagggtt	cctcactacg	caagggtcct	ccatcattaa	tgctcttcta	ataaaaaactc	4500
ttctcaaggc	tgctttactt	ccaaagggaag	ctggagtcac	acactgcaag	ggccacccaaa	4560
aggcgtcaga	tcccattact	ctaggaaatg	cttatgctga	taaggtagct	aaagaagcac	4620

ctagcggttcc aacttctgtc cctcatggcc agttttttctc ctccccatca gtcattccca 4680
 cctactcccc cattgaaact tccgcctatc aatctcttct cacacaaggc aaatgggtct 4740
 tagaccaagg aaaatatctc ctccagcct cacaggccca ttctattctg tcatcatttc 4800
 ataacctctt ccattgtagg tacaagccac tagtccacct cttagaacct ctctattcct 4860
 tccatcgtag aaacatatcc tcaaggaaat cacttctcag tgttccatct gctattctac 4920
 taccctctag ggattgttca ggccccctcc cctccctaca catcaagctc ggggatttgc 4980
 ccctgccag gactggcaaa ttgactttac tcacatgccc tgagtcagga aactaaaata 5040
 cctcttggtc tgggtagaca ctgtcactgg atgggtagag gcctttccca cagggtctga 5100
 gaaggccact gcagtcattt ctcccttctc gtcagacata attccttggg ttggccttcc 5160
 cacctctata cagtccaata acggagcagc ctttattagt caaatcacct gagcagtttt 5220
 tcaggctctt ggtattcagt ggaaccttgc tacccttacc tgtcctcaat cttcaggaaa 5280
 ggtagaatgg actaatggtc ttttaaaaac acacccacc aaactcagcc tccaacttaa 5340
 aaaggaggat agagcccaaa aactcgcaac caagctagta attatgctga acccccttgg 5400
 gcactctcta attggatgtc ttaggtcctc ccaaacttta gtcctttaat atctgttttt 5460
 ctcttctctc tattcgacc ttgtgtcttc cgtttagttt ttcaattcat acaaaaccgc 5520
 atccaggcca caccaatcg ttctatacaa taaatgctcc ttctaacaac cccacaatat 5580
 cgccccctac cacaaaatct tcttcagct taatctctcc cactctaggt tcccatgccg 5640
 ccataatcc ctctcgaagc agccctgaga aacatagccc attatctctc cataccacc 5700
 ccaaaatttt tgctgcccc acaactcaac actattttac attatttttc ttattaatat 5760
 aagaagacag caatgtcagg cctctgagcc caagccatca tatccccgtg gacctgcaca 5820
 tatacatcca gatggcctga agtaactgaa gaatcacaaa agaagtgaat atggcctgtt 5880
 cctgccttaa ccgatgacat tccaccactg tgatttggct ctgccccacc ttaactgagc 5940
 aattaacctt gggaaattcc ttctcctggc tcaaaaacct cccactgag cacttgtga 6000
 ccctgcccc tccactacc acccaaatcc tataaaatgg cccacccca tctcccttag 6060
 ctgactcctt ttttgactc agccgcctg caccaggtg aaataaacag ccttgttgct 6120
 cacacaaagc ctgtttggtg gactctcttc acagggacgg gggtgacaac aacacggaca 6180
 cacatggagt ggttttaagg agcagagagt ttaatacgca aaaaagaagg aagaggctcc 6240
 cctgtacaga cacagagga gggggctcca agccagaga aggaaacccc atgtgcagt 6300
 gaaaagtggg tgattatact gggaggctgg aggagggcgt gtctgatttg cacagggccc 6360
 aggggattgg gttgaccagg tgtatcatc atgtaccccg caaaaaacct ggccctccca 6420
 cctcagccct ttaatatgca aatgtgggtt gccatgatgt tctgaaaaca catgaattat 6480
 ctggaggggg ccattgacct tgggtacatgt gctgacaaga agaggggtgg aatcgccatg 6540
 gtggccatgt tgggtggacc tagtttttaa tagcctgcat ttgcatatca aagtttgcgt 6600
 gcctggctct ttaagctgtc tttctgtta gaaaaggaat gggttggaat gggtaggggt 6660
 tgcttcttat tacaagaaaa ttccaaaaaa cctttactct ttctagctgc caaaaaacta 6720
 tttcttaata acttatgtat taccataatt aggcagcacc aaagatccct gcaggtcaga 6780
 ccaactgcaat taacatgctg gctttactgc tgattatgg agctgcaccc acctagcctc 6840
 tcatattgca actgcctgac ctctgccacc ccacgagcca cttatcccca cttataatca 6900
 gccattttcg attgtaacat ctgccactta tctccgacgt tgtggtatat cctatagatg 6960
 aattcattca caaccacc ttctttgcct tcttatactc tctggagagt 7020
 gaattactga gtcacatgat cttcactgca gtcatttgtg gctatgtgac atagtcttg 7080
 acagtgaaca tagacagaag tccctggggc gggcttctt tctgggatga gggcaaacg 7140

<210> 63

<211> 44100

<212> ADN

<213> Homo sapiens

<400> 63

tgcctttatt tccgtaggct ggtcatatgg cgctagcact cacataaagc taccgaggag 60
 agcgaatgaa accaaaaatca ctttaccttc acagcacgag gccgtcgtcc ctctcgatat 120
 ttggcccggtg tgtcgcatac cgccctctgg acgtgggtgat caaataaact ccctagctcc 180
 ccgcccgtcg acgccatctt gcctactttg atcctcgag ggaggacaac atccgcccta 240
 ctgagctccc ttttatccaa taagagagcg ggatgagtta aggagtcca ggattggctg 300
 gagaatcgac agcgtcggcc atcgtttct gcgtgcgaag atttgatgaa cgaggtgccg 360
 ccccccagcg gctcggcgga gaggcgcggt gggtgacaga agctttcttg tcccaccac 420
 tacaggctta cggcaggatg cgcagcgggg agagggggcg gggccgcagg gggcggggcc 480

gatcgatctc ctccggctcc gacgtcctcg gectgccggg tcccgggtcc tttgcccgcg 540
 taggggtgggc gaacccagag cgacgtctcc ggacgatgtg gggcagcgat cgccctggcg 600
 gtgctggggg aggcggggcg gcagtgactg tggccttcac caacgctcgc gactgcttcc 660
 tccacctgcc gcggcgctct gtggcccagc tgcactctgt gcaggtaacc tgccggcccc 720
 gagccacctg atcttcagcc tggggtcgga cgaggccgaa gcctctcagg gacgcggcg 780
 gacaccggct gccacccggg cgccgcccga gcgcgcagag atcagggtcc ctcgacggca 840
 gggcccttct gggtagtctc tggatcccac aagtccagtg cagccctggg ctgctcttat 900
 cccaggtctt ttcacttggg gaaactgaac ctagaacgt cctaataatc taccactgtt 960
 tttataaata ttccttattc caggctggaa aagctcctga gaagtgggtt gtttttatta 1020
 ttttaaaagg tgttttccct gccagccatt tccagttaac ctgctgtgtt gccgtccggg 1080
 ccgcgagagc gggacgcaga gttgttggcg gagccctgt cggttcccgg ggactaagca 1140
 ccgcgtccca tgagcgggaa aggttaatac aatgatggtt ctgcccgtcg tcgctgacgc 1200
 ggaacacagc tgtagtgtgt taggaacaca taacgtagt taaagtcaact gaagctctgc 1260
 gatcagtcgc ccttctggac gttgtgtgta ggatgtttca cagttctaac cactgttggg 1320
 gatacagcgt ccatattttc ataattaaaa atagaggcac atgggtctcac gagtgtgagt 1380
 gtacttatgg gggcaaaagg acggcgtatt tgaaatcctc ataaatcctg gatgcattgt 1440
 acccaccagt ggctaattca tgcaatgaat agagtttgca ataatttcaa gcatcccttc 1500
 tttccacttg agttacttcc ccatacctag gggaaagatat ttttgggtcca ctgaaaacat 1560
 gagttcagca gaatcctcct atcatcgtcg ttattatttt ttaccactaa gtagacaatc 1620
 ttttggtttt tgatgggctt tatggctaga gacaaatcag tcaactgtcac caagttccag 1680
 gtagaagttg gttcagtgct ctgtcagctt cgatgggatt tttcaacatg ttttcaaatc 1740
 tgcacttaat agtaggaatg ctttcttaca gtaactctaa tttgatccta agatgtagt 1800
 gttaccttac attcatcact gtttaagaat ttagtgtgtc tgatctttgt tttaaatttt 1860
 gagccttcgg gaagtactta taagaattaa ttcatgcata tctttttgaa atgtaaatgt 1920
 ctttagccct ggaacaaatt gctgtttctg ttcagcccat attagcagaa taggtcaact 1980
 ttactttcta attatcaatg taataagttt attactttat agattccata aatctatata 2040
 tttattcctc gatgaattat ataaatttat agaatttatg ttttatagaa aatttggaaa 2100
 gcatggaaaa ttattaacaa gaaaataagt taccataat cccagaactt agaggtgact 2160
 aatggtgaca gtttgatca aatcttccag ttttgtttct aatctttatt ttaacataaa 2220
 atgaggtcct gtatacacac gtacagtttt gtgtcctggg gtttttattt aatgttatta 2280
 tgagtgtttt attttgtaa aaggtcatca ttttaagttg ttaattagta ttctagcaca 2340
 aatttgccat aatttattta attgtttact atgattgacc atttagattg tacttaattt 2400
 ttaggcatta gaagtataaa actatatttt aatcagacgt tgaaaataac acatctttgt 2460
 ttagaaaaa tcattttatt tctggttgct taggatagat tcccagaatt cttgggttag 2520
 agggcataga taattatgaa agcagaaaga ttcacaagtt gggagttaat actgaatta 2580
 ctttatttgg ggtgaagcat tgagtgcata atacagatca tgcagtaatg ggaagaagg 2640
 ttggaacaat ggttttctgg cctatgtcag acttaccttg aagcttttaa gaatacagat 2700
 gttctgatca accctcagac ctattaaatc agacctaata tcttagggaa taggctttag 2760
 gcatctctaa ttttaaaaaa tttattcagg ctacttggtg gcacaaaaga gttgagacct 2820
 actgtcctag aatcatagaa ttttaatgac gatagagacc ttaagcatct aggtcgtttc 2880
 tgtactttta catgtaagga aactggcatt cctaggccag taccattgcc atgcagctaa 2940
 tttgcccctc tgtctatagc tcaactctga taccaccaacc taccgttctc actgtttctt 3000
 ctataacca tctccttccc acttctgttc tcttactcat gccattcttc cctcagtcatt 3060
 ttttcttctc tccatacaaa ttccatgtct ttaaaaagga ataactctac ctctccaca 3120
 tagctttcca attctctgtt gccacatttt gtctcccttt caatacttct ctgttgtgtt 3180
 atgtgacaca tcacatttga tatactctgt actgtgtttc aagtattgta ttctcttgtt 3240
 tactcaagtc attatttcag gactgactac ccagttagatg ctttaagtca ggatttctca 3300
 accttggcac tgttgacatt ttgagctgga taattttttg ttttgggggg tctcctgtac 3360
 attttaagat gtttaacagc acccttggcc tctatccagt agacgcctgt actgcctccc 3420
 cctatctgtg acaaccaaaa aggtcttcag acattgtcag atgtctactg aaggacaaaa 3480
 tcacctctgg ttgagaacca ccgcttcaac taagtatatc tctctgtact cagaacttga 3540
 tgtgattgca gcagggggag aggattcata tacacagtga atgcaaacga acctaaatca 3600
 ccattcgcat atggccacac aatttttcatt tcccttgtgt tagcaagaga taccctaggc 3660
 tttggacctg attattccta aggcattctg atgtatggtt ttacctgcag atttccctgt 3720
 aatactgata cctcagtttg ggtcaaagaa ggtcaattaa ttgattgatt tgatttgact 3780
 cctggaaaag acgctccttt ctgctgtctc ctttcttctc tttacctgaa tagccaggcg 3840
 tctgtggttc aagtgaagta ttttgacata aaaattaact tagaacattg gtctgcagag 3900
 tttgtcaat ataactgagc acatattgtg gctttatgga gctggttact actttttgac 3960

caaataaata	attagaagta	tttttcctcc	tcaataagggt	tcatttttcc	ttttttcagt	4020
gagctggtag	agtttccttt	tttgatattt	cagggcacct	ttcatatttc	catctcttaa	4090
gtttcttcat	atgaagtaga	atttatctgg	attatgtatt	gctgactctg	atgaaaacct	4140
atagaaaagca	tctggggcct	gatcaccttc	attcttgtaa	tagctcacac	ggttacagct	4200
gatatggtaa	cttaagactt	ttgattccaa	atctaggcaa	aatacactca	gttgaaaagaa	4260
tttgtcagcc	agaacagttg	gactgttctg	tgaaaattgt	gagaaaaatt	acacaactaa	4320
gtgatacatg	atgatggcct	tcttaaatat	aaaattgtaa	taacatgggt	aattttccagt	4380
acgttatatt	gtcccagaag	tggctccaac	attgtttgaa	atttgtctca	tttaaagaaa	4440
cataagctgg	ctatggtggc	tcacgcctgt	aatcccagca	ctttggggagg	ctgaggcagg	4500
cagatcacct	gaggtcagga	gttcgagacc	agcctggcca	acatggtaaa	acccccctcc	4560
tactaaaaat	acaaaaatta	gccgggcatt	tgggtggggc	ctgtaatccc	agctacttgg	4620
gaggctgagg	caggagaatt	gcttgaatct	gggagggtga	ggttgcagtg	agccgagatt	4680
gtgccactgc	ctccagcct	gggtgacaga	gtgagctctc	gtctcaagaa	aaaaaaaaaa	4740
aaaagcaaga	aacataaaga	ctgggcatgt	tggctcatgc	ctgtaatccc	agcactttga	4800
gagactgagg	tgggaagatc	acttgagccc	aggagggttaa	ggctgcagtg	agccgtgatt	4860
ttgccactgt	actcgagcct	gggcaacaca	gtgagatcct	gtctcaggaa	aaaaaaaaat	4920
gcatgtaaat	gaatgaattt	gatatttaatt	attttaaatt	atgaaaactg	ttctgtagag	4980
tattattgat	tgccatgttg	cccaggctgg	ctttgaactt	ctgggctcaa	acaatcctcc	5040
tgtctcagtc	tcccaaagta	taaagattac	acatgtgagc	cactgcacct	ggcctaatat	5100
ttttaactta	atgaatttat	tttgatataa	ataaattaat	aacactgaag	cttcctgata	5160
taataagtct	ttttgtgtgt	gtgacgggtt	ctcactctgt	tgcccagact	ggagtgtaat	5220
ggcactatca	tggctcactg	tagcctcaac	ctccctgact	caagtgatcc	tcccacctcg	5280
gcttcctgag	tagatgggac	cacaggcgta	tgccaccaca	cctggctgat	ttttaaaaat	5340
tattattgat	acataattaat	aaaattattt	ttattttaaa	aatgataatat	gtggctgggc	5400
atgggtggctc	atgcctgtaa	tcccgacagt	ttgggaggcc	gagggtgggag	gatcacttga	5460
gaccaggagc	ttaagaccag	cctaagcaac	atagtggagt	cccatctcta	tagaaaaaaa	5520
aaatggctag	gtgtgggtgt	gtatgcctat	attcccagct	actcaggaga	ctgagggtgag	5580
aggattgcta	gagcccagga	gtttcaagtt	acagtgcact	atgattgtgc	cagtgcactc	5640
cagcctgggc	aacagagcaa	aatcctgtct	caaaaaaaaa	aaaagttcga	aaatgcttat	5700
gatgcaatat	aagttagtga	aaagtatatt	aaattgtgcc	tatatgaaca	caactatatg	5760
aaaaaacttg	acatagagaa	aaggattaac	aagaaataga	ccaaattgtt	cacatgggtg	5820
tcttgtttgt	ggagagaata	tcagtagttc	atttgtttcc	ttccaagttt	atatgttttc	5880
cgagggtctct	ataatgagtt	tgtaatgttt	taatcataga	aaaccttttt	ttggtccttg	5940
gccacaaaact	tacatgtttt	aatgtaattg	cttttttaat	gagaataaat	gttatatttt	6000
gcttttttaa	aacctatatt	cccatagtta	tatgagccct	tacaattatt	aagaggctgc	6060
ataatataac	gtttctggaa	gggtacagaa	gaacacgag	taattacctc	tgagaaacaga	6120
gacatggcct	cacatttttac	ccttttgtac	gtttttgtgt	tttgccacat	gcattttatta	6180
ttcttccaat	aaataagtaa	ataaatatgg	attgtatact	ccatctgggt	ggtgtttcat	6240
aattctaaaa	ttatattgct	acatttttaa	agatgatatg	tgtttctact	tattaacgta	6300
tatgttaaaa	tagtaaaattt	atatcttatt	taataatttc	cctattgata	gacatttaag	6360
acagtctcaa	gtgttcacta	tcatagaaaa	tactgcacag	atagcttttg	ctatagtttc	6420
ttttttcttt	gaatcgttaa	ttgggaataa	atgctcaaat	agttatatgt	ggctcaactg	6480
ctattttaagt	ttattgactg	actgctgcca	ttttgaattc	tgaagggggt	gattaaattt	6540
ataatgctgc	cataagaata	taagggtatt	ggcttcatta	gcattccacca	gcattgggtg	6600
ttggaaaatga	ttatagattt	ttaaatgcta	caacaaatgt	agataacaga	gaactatcta	6660
tagaactcct	tttgacatg	tgaattgtaa	taatatgtta	ttttcatgtg	aatccagaaa	6720
aatgtatacg	aaaacctttt	ttcctctcat	ttcttatatg	aatagaatca	agctatagaa	6780
gtggctctgga	gtcaccagcc	tgcattcttg	agctgggtgg	aaggcaggca	ttttagtgat	6840
gggggacagg	taagcacatg	tgatggcaat	aactttcttc	taatatcaca	taatatagca	6900
atagaaaataa	aattaaaagt	ttagattttt	tgttaaagga	ggtgagatgt	cacctaattt	6960
gtatgctatt	atgtaactag	tctaggatat	tgaagctgac	tatactctgt	ttttagggtca	7020
ttatcttgta	gtttaccata	ctccctactt	gcttcttatt	ctactattta	actcattttc	7080
cacatccctt	aaatttgggt	tcatgaaatt	atttttccct	ctgaattact	aggttctact	7140
tactattatt	aaactttatt	tctgacatat	tttataacct	tccatggctc	cacttgatta	7200
aaaataaaaa	attcagctgg	gtgcggtggc	tcacacctat	aatcccagca	ctttggggagg	7260
ccaagggtggg	cggataattt	gaggtcagga	gttgagagacc	agcctgcca	acgtggtgaa	7320
accccccttc	tctactaaaa	attcaaaaat	tagctgggca	tgggtggcagg	tgccgttaatt	7380
cccagctact	caggaggctg	aggcaggaga	attgcttgaa	cctggggaggt	ggagggttgca	7440

gtgagctgag attgcaactgc tgcacttcag ctgggtgaca agagcgaaaac aatgtcttga 7500
 aaaaaaataa aaaataaaaa attctacaac acagggttat tttttttcca tttttgtttt 7560
 cccttatgag tttaatatgt ttagattata aacctgaaag cttgaataac tatgtctatc 7620
 ttttgttttc ttatgtttat caagttattc ctttaaacat tttctaaact gtaagaataa 7680
 tgtgaggctg ggctcaatgg cttatgcctg taatcccagt gctttgggag gccaaaggtg 7740
 gaggaccact tgaggccacg agttcaagat tagcctggct aggcaacata gcaagacct 7800
 atctctataa aaaaattaaa aaaattagct gggcatggta gcaaagtctt gtagtcccag 7860
 ctactcagca gactgaggta ggaggaatgc ttgagaccag gaatttgagt gacctatgat 7920
 tatgcactcc agcccgggca atagcaagac cctatctctt aaaagaagaa gatgtagtaa 7980
 taatacatat tcattataac tattttacca ttgaaagtaa aaaatgagtt tttacctttt 8040
 cccagtccca tctcagaat ggggatctca gtagacctt aggattggaa gaatgagatc 8100
 attcatattt tctgcaatta ttaccccaca aaatatttca gatacctttc catgtattac 8160
 aaacaatgtg catttaacat gtctctctct tctctctct ctctgtgtgc gtcttcatga 8220
 tcctctgttg cagccctgcc agtaagacac tatctcctga agaactcactg ataggaacag 8280
 aaagtggact ggctaggcca ggagtcctta gcttcttagg gggcaggagc tgctttgtgc 8340
 tttctcagaa tcagatatat atgtggactg aaacatttaa aaacagaata gccaaaggtg 8400
 ctatagcttt aaaacttata tagatggggc tactattgct tctattacta atttcccatg 8460
 acaatacacg agagtgccat gtctttttaa cttgttttga gcacagacta atcttgttta 8520
 tgcattgttt ttgatgagaa taggctactc atgagaaatc tgtaaaccta acactagtcc 8580
 cttgcatact ctaaaattgt gctagaatct taaaatttta gcaccagacg gaccttagaa 8640
 atcattaact ttgggtgcttt gttctacaat acaaggagat ggaatatatt acccaggatt 8700
 gcttagcagg ttacagtctt gccctctgag taccagcac tccctgttg gcaacatcaa 8760
 cttctgatt ttcaagtctt aattagtact ctgaagaatc ctacttgtt ttaactccca 8820
 tttgctttga agtgacttta cctgattttt ttgattccct tattgcagca atgccactaa 8880
 gaaactgagt ctctagcttc ttgggtggga ggagctgctt tgtgcttgc cagaatcatc 8940
 cttttcagta agggagatat tgaagagaaa tctactgagg agtctggggg tgaggcactc 9000
 agggaaatcc tgctccagtc cacaaaagca gagaggaagg gttggttacc tagagtattt 9060
 aacatgcaga ggctttggat ttactcctt taatccttg aaatgcctat ggaaggggaa 9120
 aggaagtaag atggtgactc cagcttagt acataactgt gttacatata tttaaactat 9180
 aataggaggg tattattagt ttactttaac tttcaactgt gaaggattat acttctcaat 9240
 atttgtctcc agtgtctatt tcagtgtatt tttactttt cttgaagcag catgtctgtt 9300
 gcaaaaacttc tagaaataat gagaatattt atatattaga tcaagccata acttgatgat 9360
 atagtcattt cttcttatat tttttactta catttttaca ttttaatgat tactttcatt 9420
 tttgaaaaac atgtcatgct gagatgtatt tttcttcatt ctgtaattag ttatgaaaca 9480
 gtttttccca aaatgctgag tatatcaagt ctgggctaag aataagtaat aaatatttgc 9540
 cacatgaaag actacacata tagccagggt cagtggcttg cacctgtttt cccagctacc 9600
 caggaggctg aggcaggagg attgcttgag cccagggttt ccaggctgca gtgaactatg 9660
 attgtaccac tctactccag aatgggtgac agagccaggc cccatctctc aaaacagaaa 9720
 agaaagatta catagactac atatacaccc ccatccaaaa catacacaca catctactta 9780
 acctaaaatg gtaagaagat aacttcttat tttctaatat atgacacaga aaagtttttt 9840
 taaagtatgt ttaaattttt aattttttct aggtatttct caagccatgt tcccatgtgg 9900
 tatcttgtca acaagttagg gtggaacccc tctcagcaga tgattgggag atactggtaa 9960
 agaaaaccaa ataagaacta tctcatttaa ggttaaatta cttcacaata tcaatgtctt 10020
 tagctttctc taagctttat tatatatctt gagttgggtt tgaattataa gaatgaattg 10080
 gggccaggca cagttagtca tgcctatagt cccagcactt tgggaggcca aggcaggtg 10140
 attgcttgag tccaggagt tccaggagt caagaccagg ctgggcaaca tgggtgaaacc ccgtatctac 10200
 taaaaataca aaaattagcc aggcattggt ttagtcccag ttagtcccag tccattggga 10260
 ggctgaggca ggagaatcgc ttgagcccgt aaagtcaagg ctgcagttag tcaggatctt 10320
 gccattgtac tccagtctgg aaaacagagt gagacctgt ctcaaataaa aaaagaatga 10380
 attgatagag atctaattga caacctgaca actataggta ataaaattgt attggggatt 10440
 catgttaaat gagtagattt taactactct taccacaaaa acacaaaagt gggttaactgt 10500
 gagatgatgt atatgttaat ttacttcaat atagtaacca ttatactatc tatatgtagc 10560
 tcataacacc atgtcgtgta tattaatat gcacataaaa atttgtttt taaaaaaaaga 10620
 attgagattt tttttaacta gatatggagt ggacaaaatg taaagtgaat tgatcttttc 10680
 gtctgttggt tctaggagct gcatgctgtt tcccttgaa aacatcttct agatcaaatt 10740
 cgaatagttt ttccaaaagc catttttctt gtttgggtt atcaacaaac gtacatattt 10800
 atccaaattg gtaggtgcta ttgtaatat tgctgtcata ttctacacta tagcattgag 10860
 tccaaagtag aatatgaatg gcactaatga gctttatttt ctacacagtt gcactaatat 10920

cagctgcctc ttatggaagg ctggaaactg acaccaaact ccttattcag ccaaagacac 10980
 gccgagccaa agagaatata ttttcaaaaag ctgatgctga atataaaaaa cttcatagtt 11040
 atggaagaga ccagaaaagga atgatgaaaag aacttcaaac caagcaactt cagtcaaata 11100
 ctgtgggaat cactgaatct aatgaaaacg agtcagagat tccagttgac tcatcatcag 11160
 tagcaagttt atggactatg ataggaagca ttttttcctt tcaatctgag aagaaaacag 11220
 agacatcttg ggggttaact gaaatcaatg cattcaaaaa tatgcagtca aagggtgttc 11280
 ctctagacaa ttttttcaga gtatgcaaat ctcaacctcc tagtatatat aacgcgtcag 11340
 caacctctgt ttttcataaa cactgtgcca ttcattgtatt tccatgggac caggaatatt 11400
 ttgatgtaga gcccgagcttt actgtgacat atggaaagct agttaagcta ctttctccaa 11460
 agcaacagca agtaaaaaa aaacaaaatg tgttatcacc tgaaaaagag aagcagatgt 11520
 cagagccact agatcaaaaa aaaattaggt cagatcataa tgaagaagat gagaaggcct 11580
 gtgtgctaca agtagtctgg aatggacttg aagaattgaa caatgccatc aaatatacca 11640
 aaaatgtaga agttctccat cttgggaaag tctgggttag tataaatatt ataacttggg 11700
 agaaatttta tgtggcttaa acatccccc aaattgaatt agaatagtat ttcatatata 11760
 aattgaaaat caattaaaaa gaaacacagt gcctaaaggc acttggggga cacatttacg 11820
 ctttgcagta aagtccctgt ttggataaag attgtatgtt ttctggccaa gtaagcttga 11880
 ataggacaaa agcttagatg gttcaggcca gagaggtcaa aattacttgc ctgagattgc 11940
 atagctagtg ttacaactag gattcaaac caggcagatt gacttggggg ttcattcagga 12000
 tggagtgcc tacaaagcct cccatcttta atgcttgacg atttgttccc cagttaccga 12060
 aagcaacttg ttaattattg ggaaaaggc cagtgtaggg agagatccat ggcattgagg 12120
 aaccttctgt ctgcatgtgg tggcacctgg attggaatgc atccaggagc tgcttaccct 12180
 gccggtgtct gctctttaat ttgtgtataa cggagaggaa gtagacaggg caactagtgc 12240
 tccagccctc catcctggcc acaaatatta atgctacctt tatatgacat aagtcactag 12300
 tccattttatt ggaacctaaa tttgaaccac tgtaaagtaa gacttcatag tgataaagag 12360
 aggaacttgt taggaaagag aataaaatag aaagagaagg ttgtctcctt ttgtagattt 12420
 ttttttttcc tccaacagtt ttacctgtga cctttatata aataactgac aaagcattaa 12480
 tctcttttggc ctacatcatt ttcttttcta tttttttttt ccacaagatg gagtttcact 12540
 cttcttggcc aagctggagt gcagtgccat gatctggctc actgcaacct ccgcctccca 12600
 cgttcaagtg gttctcctgc ctacagcctcc tgagttagct ggactacagg catgcaccac 12660
 cagcctggc taattttttg tatttttagt agaaactggg tttcaccatg tttagccagcc 12720
 tgggtctggaa ctctgacct caggtgatct gcctgcctcg gcctcccaa gtgctgggat 12780
 tacaggcatg agccactgct cctggccggc ctacatcatt ttctaaagct ccagaccatt 12840
 cttttctttt cttttctttt cttttctttt cttttctttt cttttctttt cttttctttt 12900
 ttctcttctc ttctcttctc ttctcttctc ttctcttctc ttctcttctc ttctcttctc 12960
 ttagaagctt gctttgttgc ccaggctgga gtgcagtggc accacctcca ctctactaga 13020
 cctccacctc ccaggttcaa atgattctcc tgctcagcc ttccagagtag ctgggactac 13080
 aagtgtgcgc caccactcct ggctaatttt tgtattttta gtagggacga ggtttcacca 13140
 tgttggccag gctagtcttg aactcctggt ctcaagtgat ccgcctgcct cagtctccca 13200
 aggtgctggg attacaggcg tgagccactg tgcttgccct cagatcatta ttttctgta 13260
 gctttaaaat gtcggttcag gagatccac tgcatcctca aattcaaaat atctaacact 13320
 gagcttatga tttagctggt tctgtcatta gatgggaata tcctttttatt tccttgaaat 13380
 tatatggtga gaacaggag aagtgtctgat ggtaaagtcc tgtgattaag atagcaataa 13440
 ggactccgcc cttccacctc cactgaaggt tgaagagcca tggacaatga gaagtcacag 13500
 taggtgaaat caggtactaa aatggacttg gcttgagaga tcaaaattga tcacttggtg 13560
 atacaactaa caaattcatg ttaacttgaa cttttattac cctgtgaagc atgggtgatta 13620
 aaaaaaaaaca acaaaaacac aggaaacttg attgttaaatt tctctttaag tcagaatatg 13680
 taccttagag tttttattta tgcttttgtc taccattaat atgtctgcac ctgctcttta 13740
 gaagttaata gagagtaaag tcttctttat gtctttcagt gcttacttat atttgggaag 13800
 ttgagaaaaa tttttaacat cattattgat atatatatat atatatatat 13860
 atatatatat atatatatat atagataatt tttttttttt tcttgagacg gagtctcact 13920
 ctgtcgccca gcccgagtg tgggtggcgt cctcactcaa tgcaagctct gcctcccagg 13980
 ttcaagcgat tctcttgctc cagcctcccg agtagctagg atacaggctc ccaccaccac 14040
 gcctggctaa tttttgtagt tttagtagag acgaggtttc accatatttg ccacgtgggt 14100
 ctcaaactcc tgaccttgtg atccgcccac ctgggcctcc caaagtgtct ggattacagg 14160
 cgtgagccac tgcgcccggc tgaggtaaaa tttaaagtgt acaattcagt catttttagt 14220
 atattttata tagttgtaca gccatcacca caatctaagt ttagaacatt ttcattaggg 14280
 ggtgggagaa attttactct gcttttttaga ttaagtttct gtctggatct aatcatttaa 14340
 tcagacaatc aggcagattg tctgtgatta gttttggcca ttccagcttc ttcattgggt 14400

gttaactttc	acaaataaag	gctgctcaaa	gattagaaat	aacattttaat	ttgaatgtaa	14460
atgtgccata	gttttaaaaga	tgggttttgg	gaatacagtc	aaatacacatac	attttaaagct	14520
ctaattctga	agattatgta	aagaaaagga	aagaaatgta	gggagaggat	tgaaatgttc	14580
atggtataac	aatatctgaa	catccatctg	gtcacaccgt	tgggtattga	atgttttgc	14640
ctoctcaaat	tcatatgtcg	aaatcccaac	tcccaagggtg	atcgtattag	gaggtgtgg	14700
ctttgggaag	tgattagggtc	atgaagggtga	agccttcacg	aatgggattc	gtgctcttat	14760
aaaagagaac	tgtgagaaat	aagtttctgt	cgtttgtag	ccaccaggt	taggatattt	14820
tgatatagca	gcctgcatgg	actgagacaa	ctatgagtta	ttatgatagc	ttctgttatt	14880
tcacctaaat	tcatagaagc	taatatatca	atatttatgc	tatgaaatat	ttcttaacca	14940
agctttgaat	atatttataat	ttttgtttat	ttttaaattt	cagattccag	atgacctgag	15000
gaagagacta	aatatagaaa	tgcatgccgt	agtcaggata	actccagtgg	aagttacccc	15060
taaaattcca	agatctctaa	agttacaacc	tagagagaaat	ttagtgagtt	caaatatata	15120
tgttacatca	aaattctttt	acacgttttg	taagatttct	agttgcttta	gctaagtaat	15180
aagaatgttg	tattcctttt	tgatacaaat	ctttttttat	tgtgttaaac	tatatataac	15240
ataaaatatg	ccatgttcgc	catttttaag	tgtataattc	aaaggcatta	attacattca	15300
taatatgtga	caaccatcac	cactatctat	atccagaact	tttccatcac	cccaaagaga	15360
aacttggtac	ccattaaaca	ataattcccc	gtccactcct	ttccccagtc	cctggtaatc	15420
tctaattgtat	atttgtgtctc	tatgaattta	cttattctag	atatttcata	tataagtaga	15480
agtatgcatt	tgtcttatgt	atctgactta	tttcatttaa	cataatgttt	tcaaggctca	15540
tctgtgttgt	atgtatcaga	atgttattcc	ttttcatggc	tgaatactat	tccattgact	15600
gcataatcca	catttgttta	tccattcatc	tgttgatgga	cacttggggt	gtttccacat	15660
ttttggctgc	tgtgaataat	gtcacagtga	acattgggtg	acaagtatct	gtttgagttc	15720
ctcttttcag	ctcctttggg	atatacctag	gaattatgtt	taactttttg	agaagctgag	15780
aaatctttta	taaatgataa	cacaaatact	tatatttgcc	aatgcaaata	tgaatatattt	15840
tggcttttaa	gagattgatc	attttgccac	gtgggtgtga	ttaaaaaaa	ttgtcccacg	15900
ttgtttcagt	attaatatgt	tagcctaaaa	gagtgctaga	ctgttttact	ttttactcag	15960
ttaattcttt	ggatactgg	agagtcagga	aatgagatat	tgaacttaaa	gatcttttga	16020
ggtgggggtc	agtgggtcac	acctgtaate	ctagcacttt	gggaagctga	ggtggggaga	16080
tgaggtgagg	ccaagagttt	gagaatagcc	tgggcaacat	agcaagacc	catctctaca	16140
aaaaaattaa	aaaaaaaatt	aagccaggcg	tggtagctca	cgctgttat	cccaacactt	16200
cgggaggctg	agatgggtgg	atcacttgag	gtcaggagtt	ggagaccagc	ctggccaaca	16260
tggtgaaacc	ccatctctac	taaaaatacc	aaaattatcg	gggcgtgggtg	ctaactcctgt	16320
aatctcagct	actcaggagg	ctgaggcagg	agaaccactt	gaactgagga	ggtggaagtt	16380
gcagtgaacc	tagatctcac	cactgcactc	cagcctgggt	aacagagcga	gactctattt	16440
caaaaaaagt	aaaaataaaa	attagacaca	tgtgggtgga	catgcctgta	gtcctagcta	16500
ctcaggaggc	tgactgaagt	gggaggatct	cttgagccca	ggagttccac	actgcagtga	16560
gctatgattg	tgccactgca	ctccagccta	ggcaatatct	caaaaaaaat	ttttttaaat	16620
agattattag	gccagacgtg	gtggctcatg	ccagtaatcc	cagcactttg	gaaggccaag	16680
gcaggcggat	cacctgaggc	caggagtttg	agaccagcct	ggccaacatg	gtgaaacccc	16740
atgtctacca	aaaatacaaa	aattagctgc	aatgtctata	atcccagcta	cttgggagcc	16800
tgaggcaagc	gaatcgcttg	aaccggggag	gcagagggtg	cagtgaagtgg	agactgcgcc	16860
actgcactcc	agcctgggag	atacagcgag	attctgtctc	aaagaaaaag	gaatttgttt	16920
tcctgtcttt	atcgtagagg	gaggaaagg	agaatggggt	tggaatgggt	attgagtgag	16980
ccacattatg	gtagatgtat	cactgggcat	agagaaaagg	agcattttaa	acttttccgc	17040
ctaacagatg	tttcttcagg	ctacactgca	ctcattgtgc	taactgtaat	gtcaaatccc	17100
agacctgtgc	ctatagaaca	tgaacatcct	tcatttgatt	tgttttgtca	ggcttacact	17160
ttattaggaa	gatcagatgt	taaaataagg	gtgttaaagt	taagttcaga	tatgaggata	17220
attcattact	atttcttttt	ctggcagcct	aaagacataa	gtgaagaaga	cataaaaact	17280
gtatttttatt	catggctaca	gcagtctact	accaccatgc	ttccttttgt	aatatcagag	17340
gaagaatttta	ttaagctgga	aactaaagat	ggtgagtaca	tttgttattt	tgactttttt	17400
ttctatttaa	atagttgtac	atttttaatt	gtttctgcaa	cctgtcatac	ctgtgaacag	17460
tatgtgaata	gtgaaatata	attatgataa	ttaaacagta	gtttttatgt	attgaaaaat	17520
atctttggcc	gggtgcagtg	gtcatgcct	gtaatcccag	cactttggga	ggccgaggca	17580
ggcggatcac	ttgaggccag	gagttcgaga	gcagcctgcc	aacatggcgc	aaccctatct	17640
atacaaaaaa	atacaaaaat	tagcctgaca	tagtggtgta	tgctgtagt	cccagctact	17700
tgggaggctg	aggcagaagg	atcacttgag	cccaggaggt	ctgtgttcct	gccactgcac	17760
tccagcctgg	gcagcagagt	gagaccctgt	tggggggaaa	aaaaaaaaag	tctttaactt	17820
aaataaaatt	gacattttaa	atcttaaat	atctcatctc	tgtttcagta	ctaactctgc	17880

atttattact	ttcttttttaa	taggactgaa	ggaattttct	ctgagtatag	ttcattcttg	17940
ggaaaaagaa	aaagataaaaa	atatattttct	gttgagctccc	aatttgctgc	agaagactac	18000
aatacaagta	atagcatggt	attgaatat	taataaaaata	ctatttggtta	catatgattg	18060
ataataaagt	atgaagttcc	ttgtaacacc	ttgcattgtg	aagtgtatta	aaaacctgct	18120
aagagtaagg	aataaacttga	tttaaaatat	tttattctgt	aatctcttta	aattatctgt	18180
acaaattatt	gacttaacct	aaatttaaaa	atgaatgcct	tagcacaatt	aagttccaag	18240
aatagagttg	atcatgttaa	ctggtaaatg	gatcatgatt	taaaattctt	ctaggattga	18300
aacaaatgaa	aacgtagttt	taagggtttg	atttttttaa	ttcctatttt	tacatgcaat	18360
tttactgcac	aaacctatct	attttgacag	ttcttaaat	cgcaactctt	cagaaatatt	18420
atcagatcac	ttttctttgc	ttccataagt	ttttttatta	ttatattatt	attttttttt	18480
tttaaaagac	ggtgtctcac	tttgtcgcct	aggctggagt	gcagtggcat	gatcatggct	18540
caactgcagcc	tcgacctccc	aggctcaggt	gattctccca	cctcagcctc	ccaagtagct	18600
gggaccacag	gcgaatgcc	tgatgcctgg	ctaatttttg	tatgttttgt	agagataggg	18660
tttcaccatg	ttgcccagaa	ttgtcttgaa	ctcctgggtt	caagcagttg	ttctgccttg	18720
cccacccaag	gttgtgggat	tacaagtgtg	agccagctcg	cccagctatt	cagaagatgt	18780
tttaagagtc	atcttttttt	tttttttgag	atggagtctc	actctgtcac	ccaggctgga	18840
gtgcagtggc	acactctcgg	ctcactgcaa	cctccacctc	ctgggttcaa	gtgattctcc	18900
tgctcagct	tccttagtag	ctaggattac	aggcgcagtc	caccatgccc	tgctattttt	18960
tgtagtttta	gtagagacga	gatttcacca	tgttggccag	gctgctcttg	aactcctgac	19020
ctcaagtgat	ctgcccctct	cagcctccca	aagtgtctgg	attctaagtg	taaaccacca	19080
caccagcca	agagtggctt	ttttacaata	ttattttttg	attaggacat	tcattcttgt	19140
cataaaaattg	aagatactct	agtcatttag	aatttccattg	ttttggaaact	agacattgtt	19200
tctttatttt	tgaatgtta	ttgaaggaat	accatttggg	gaagatacaa	atgtaagaat	19260
tgtgaaaagg	ataattgtga	cacaaatcaa	aattatagat	aaaaatatac	ctgtaaaatg	19320
tattaaggca	ataacattct	ttctgcttgt	tgaccataaa	tatttatatt	ccctggatgg	19380
gtacattggt	attgtcaagg	gtgtttaa	aatgatcttg	catgcataat	ttattctctc	19440
tgttataaca	gaatcagcaa	tttagttttc	tgggaccgga	gaaaaacatg	caaaagacat	19500
actttgaaat	gtaaaaactga	tttttccctg	caactgtagg	tccttctaga	tcctatggta	19560
aaagaagaaa	acagtgagga	aattgacttt	attcttccct	ttttaaagct	gagctctttg	19620
gggtaagaag	ttatggccaa	actagcatgt	tagacatggt	tttaacacta	tatctggcag	19680
agttttcaat	gtaaatatta	aagttagatgt	taatgtcaat	aagtgatctt	aataatgcat	19740
cagtagatat	tttttcaagg	attgtctcta	tcttcacgcc	tagcttataa	tttgccctgt	19800
cgtctttttt	tttttctctt	tattttttatg	tttttatcca	tccttgggtg	taggggataa	19860
ccttgctctc	ttcgataaca	agaaagtctga	agcttattag	aaattttact	ttggaattg	19920
atcgatgaga	agaaagcaac	tagatatcac	gtggatcata	tatgcttgaa	taaaacaata	19980
attcttagaa	caaataaata	catttttaaaa	gttaaagcca	aaaacattag	ttgaatgttt	20040
aaaaatatatt	caaattaagt	tattccttca	ctgtcttgta	ttactgtaat	aatttggatt	20100
atttgtgttt	ttctcaactt	ttaaaaacaaa	tattttaaaa	attcctcttt	tgattaagta	20160
gggctagata	aaatataaaa	aatatttttt	aaactcctct	taatttccat	atttcttata	20220
taatatgaga	atctcttata	aacactacct	cttagaagtc	tcacacagaag	ctttggtaga	20280
tgtagtagta	gggatttgat	ttcttagaat	ggtataatct	gtaaatgttt	tagtaaaagg	20340
attaaacgat	aaagtcaaaa	tgtttatagc	acagtgttta	ttaataataa	ataaaatctc	20400
tttttttttt	tttgagatgg	actctcactt	tgctactcag	gctggagtg	agtgttgcaa	20460
tctcagctca	ttgcaacctc	cgccctcttg	gttcaagcaa	tccttccgca	tcagcctcct	20520
aagtagctgg	gattacaagc	atgcaccacc	acacctgcct	aattttttgt	atttttagta	20580
gagatgggg	ttcaccatgt	tggccaggct	ggtctcaagt	gatccgcctg	cctcagcctc	20640
ccaaagtgtc	gggattacag	gcgtgaacca	ctgtgcccag	cataaagtaa	aatctcttca	20700
gactctcatg	tgatcatgta	aagtggcagg	cagtcacagt	caagaagtag	tttaaagttc	20760
atgtttgtaa	aatataatct	acagattgat	actggatttc	ataggtaatg	tttaagagaa	20820
aataagtttt	tagttatcct	cagtacttca	aaagcaccga	tttatgatta	tgttgattac	20880
taaaactaaat	catttggggg	ctagagggtg	ttttttatgt	gttaagattc	cttaaggagt	20940
tctatttaggg	caaaaactttt	agtaactgca	tatttttaaaa	gtaataaaac	taatttttaa	21000
agcttgagg	ctgggcgcgg	tggctcacac	ctgtaattcc	agcactttgg	gaggccaagg	21060
cgggtggatc	acttgaggtc	aggagtttga	gacgagcctg	agcaacatgg	tgaaaccttg	21120
tctctactaa	aaatacagaa	attagccagg	tgtggtgggt	ggcacctgta	atcccagcta	21180
ctcggggagg	taaggcagga	gaattgctcg	aacttgggag	gcagaggttg	cagtgaagccg	21240
agatcatgcc	actgcactcc	agcctgggtg	acagagcaag	actcgtctc	aaaaaaaata	21300
aaaaaaaaaa	gcttgaagtc	agattcgaca	ttaatcagta	tactttctct	caagtagggg	21360

acaatttcta agatttttagt cttttaaaaat ttatttaacta gtctgagcat ggtggcctgt 21420
 gtctataatc ccagcacttt gtggggccga ggcagatgga tcacttgagc ccaggagttg 21480
 gagactagcc tgggcaacat ggcaaaaccc cgtctctaca acaaatgcac acacaaaaaa 21540
 cccaatcagc tgggtgtggt gttacactcc tgaagtccca gctactcggg aggcctgagc 21600
 aggaggatca cctttgccag ggcgtttgag gctgcaggga gctgggttca caccactgcg 21660
 ctccagcctg gatgacacag caagccccct tctcaaaaaa aaaaagataa aaaattaaat 21720
 taaattaatt aactacactg ggaaggcaaa attcagcatt tttttatagc taaattttat 21780
 cctgcttcag tcttttatca tgtaactatg tataattttt acagaggagt gaattcctta 21840
 ggcgatctct ccttgagagca catcactcac agcctcctgg gacgcccttt gtctcggcag 21900
 ctgatgtctc ttgttgacag acttaggaat ggagctcttt tactcacagg aggaaaggta 21960
 agtggttaag gtgtgttcac tttctgttaa catttaataa cttttcatct atctttcttt 22020
 gggttttgac catctattat ataggggtggg ttttgaccat ctattatata gggttttatac 22080
 gacatatgga aagcattcat ttattcacta atattttctgt gtgtctgctt ttagggtgttg 22140
 ggggagtgat gacgaataag actgatgttc tccatgccct tttctgtgtt cagttgatac 22200
 aatttatatg tttttctttt ttaggctatt aggtgttgat aggggtgagt aacttacaaa 22260
 ttgtgaacca gccttgcata cctgtgataa ataccacgta gttgtgggtg atcattcttt 22320
 ctacattgct gagttttatc tgctaattgt ctgttgagct tttgtccatt taagtttgaa 22380
 agtgattagt ttgcagtttt ctgtttttgt gttgtctttg tctggttttg ctatccgtgt 22440
 aaatctggcc tcataaaatg agatgggaag tattctctcc tcttcttttg tttttttgga 22500
 agaggttgta taaaattgag gctgaatctt ggtgggtggc acaatgacag gaactatttc 22560
 tgtgactgaa tatattggga attcctataa agcaattatt ttctagggaa gtggaaaatc 22620
 aactttagcc aaagcaatct gtaagaagc atttgacaaa ctggatgcc atgtggagag 22680
 agttgactgt aaagctttac gaggtatgag tatggtaaca ctctatataa atcccttttt 22740
 cattagaaag acaggaatgt tatacataat gctgtcaatc taataaatac acatatcatc 22800
 tagtctttaa cttttctgtt tatcatttag tcattaaaaa ttctttggct ttctaattgt 22860
 tttgataaaa tttctaaaaa tctccatatt taatggaggc ctattttttt ttctagccag 22920
 aactttttgt agactacatt tctggaagtgt ctcactgaca ccactctgaa aaatttagtac 22980
 ttagaatata ctctaattgg tataaatgat ctctgaattg ctatggaaaa ctgggagaat 23040
 ggttgcttca ggggagagaa agtaggaggc tgtggacagc aatgaggaga attacagttc 23100
 accatataac acttttgtac ttttaaagtc cttaacattt acattattat ctattcaatt 23160
 aaaaaatatt gggaagattt tactttgaac agttaatttt tcccccatgg gtaccgctgt 23220
 catatagtcc caactaatca tgaacttggt tatttctctgt tctttgtaaa tttaaacttt 23280
 gtaactcacc aggaagtttg aagccaaatt tgtgtttcaa atatagcaac tccaggatct 23340
 ctaggcagat gcatttgcat ttgattttta atgaatcttg atcccttact ctacttatg 23400
 ttttccca caactacttt tttattttgt tgaagccat ctaaaattct caatgggatg 23460
 aaactgggta taaatgaata catgcataca ggaattatag tagcatattc cttttctttt 23520
 ttcttttttt ttttttttga gacagagtct tgcctgttag ccagggtgg agtgaggtg 23580
 tgcgatctcg gctcactata gcctccacct ccagggttca agcaattctc gtgcctcaac 23640
 ctcccagata attgggacta caggtgcatg ccaccacacc tggctaattt ttgtattttt 23700
 tagtagagat ggggtttcac catgttgccc aggtgatct caaactcctg acctcaagt 23760
 gatctgctcg ccttggttcc ccaaagtgct gggattacta gcataagcca ctgcacctgg 23820
 cctccttttc tgagttttat aaaatttgat actttactgc acgctttgag actgtattaa 23880
 ttgaaccatg ttgatgaaca agtttttggt atgggtatat taataaaata tagatcaaat 23940
 ttttatagtt aaatcaatat cgagcttttc tagtgctttc aaaaggacaa cctgaatttt 24000
 cccagcactg aaatgatact gaaaccattt catatcttct gtattaaagga aaaaggcttg 24060
 aaaacataca aaaaacccta gaggtggctt tctcagaggc agtggtggatg cagccatctg 24120
 ttgtcctgct gcatgacctt gacctcattg ctggactgcc tgctgtcccg gaacatgagc 24180
 acagtcctga tgcgggtgcag agccagcggc ttgctcatgg taaatgcac caccactggc 24240
 ttaaggtctt gttcttttgt cagtcagcat ttttagtctt aacaataaat ctactctctt 24300
 cagagaataa tatatgtgtt atgttaaagt ttgtgtttga ggccccctgat ggcattctac 24360
 agttgtccta tagactgtaa tagcaaaatt ggtagagtaa aaacagtgtg aaaattctcg 24420
 aacttcattg ttagtctttt agggtttttc acttaccctt acttattgtt taatttcag 24480
 atttactctt ttgttacttt gacaaatatt ttgtcaaatg ttgtgcacag tctgtattct 24540
 caaattctag gagaaaaaga aggggtgaaca gtattagcgc agaacgatac taataatgat 24600
 ggctactgtg tatgagttag cagccctttc ttggctttct tggattgctt tgtattctac 24660
 atgaagatat tccctgggct ttacagggtca ataaatggaa attcagagag attaatttga 24720
 ccagggtgac caacaaggag atgacagcat acactatgag agaagtatac acagagtagt 24780
 gtaggagcat ataaccataa ctgggggtga ggtgggataa ggagttatca gggaaaggctt 24840

tttggaggag	ttgacaactg	agccgagttt	tgatggaaga	gtagaaatta	gcataaacca	24900
atttcatgct	aataaagaag	caaaggaagc	gtggtctaca	ggcaaaagca	cagagggtaca	24960
ggaagtaatg	atatgttggg	gaataccctg	ttgactggag	cttagagtg	aaggagagga	25020
gtgctaggga	ggtgaggttg	gaggggttgg	cagcattgac	ttgcttcaag	gttcttaaga	25080
gctgaaatag	atataaaatg	caactaagag	tggcttggat	tattattacc	tagtgtgtta	25140
atctcaaatt	ttgaaatcta	tagcatctat	aggactgggtg	ttactaatct	tacactcgat	25200
ctgttactgt	tcttatacta	gatctattag	tccagtgttt	aagggagtg	tgcatatttc	25260
taggtcagga	caggactcag	atgtacatta	ttaatgccta	tttcagttct	gaccttctca	25320
tatgaaacct	tataagacct	ggggtaggaa	gagattgttc	tggaagtcat	aggaatatga	25380
actgtatttt	gtttaacaaa	caatacagta	tggaaattta	tcaccttcc	agaatattta	25440
tttcagagac	aaatttttat	cattcggtca	tttatttcat	aagatccacg	agtagggaac	25500
ctcactagac	attgctctga	gtatatggct	tgagtttgca	gtacctcttg	tgtctccatt	25560
agatttatta	ggctctcaat	agataaatca	gggaataact	agatggatto	attttttaaa	25620
gacatgaaag	agcgatacca	tacatactgc	accttaaagg	tcaaccttag	agtatcatta	25680
tttttaatga	atgtataaatt	tttaaatctc	atgtttactt	ttcctaagct	tttgactatt	25740
attgcttaat	tccagctttg	aatgatattga	taaaagagtt	tatctccatg	ggaagtttgg	25800
ttgcactgat	tgccacaagt	cagtctcagc	aatctctaca	tcctttactt	gtttctgctc	25860
aaggagttca	catatttcag	tgcttccaac	acattcagcc	tcctaatacag	gtaatacact	25920
acttgtaagg	attattgaat	tatgtccctt	ttatagaaat	tatttttcaa	ttttattagt	25980
aattcgtggc	tttaaattta	tgcttctctt	aatgatttta	aggatatgta	agtcaacatt	26040
tggtgcatat	tggtgctagag	gcataaatta	taattttatag	ccacctgaaa	tgtagtatg	26100
cgctttccaa	gaaaatgact	tttttgaaaa	ttggtattct	ttgaatgaga	aagaacagag	26160
agaaatagat	agatggcttt	taaacacttc	attaaattaaa	cttttttttt	ccaccatcac	26220
ataatggcac	ttagtccctt	ttgggaactc	atgaggggtt	tagtggtagt	gagctgaaag	26280
aaatatgttc	caggactggc	aaacatattc	taaattcttt	aaaaatttca	cctagcatct	26340
accctaasata	ttcagaccct	gtgctagtta	actgctattg	aagaacaaa	gtatttatat	26400
tattattaag	gataatagaa	tggtatttga	gatattggct	attgaatatg	aatatgtttt	26460
gagaaataag	ttttatagga	accaaaaaaa	aattcttaaa	ggaaccatat	attactaaaa	26520
atgcttctta	ttggagaaa	aaatgacaat	cttttattaa	tgtgattttt	tacaactttt	26580
attaagatat	aattttaagta	caacaaactc	acataaagtg	tacaatttga	tcagttttga	26640
catatgtaga	tgccatgaaa	ccatcaccac	aattaaggaa	acaaacattt	tcatcactcc	26700
agaagtctcc	tagccctttt	actaccctt	cctccctgc	tccatcccca	gacaactacc	26760
aatttgcttt	ctgtcactat	agatttgc	acctgatttt	ctccaaatat	acattcaaaa	26820
atatacaatt	gaatacaatt	ggaaattcga	tttttgggtt	tttttcttta	ggaacaaa	26880
tgtgaaattc	tgtgtaattg	ataaaaaaat	aaattggact	gtgatataaa	caagttcacc	26940
gatcttgacc	tgcatcatgt	agctaaagaa	actggcggtt	ttgtggctag	agattttaca	27000
gtacttggg	atcgagccat	acattctcga	ctctctcgtc	agagtatatc	caccagagaa	27060
agtatgtttt	actattaaaa	cctgaacttg	gaatcttctt	tctattgtgg	agaaatgtaa	27120
ttgtagtaag	acaagaatta	aatatatctc	attgtagtat	ttgaataagc	agttatttga	27180
gtagaaaatt	agtgtttcca	gctaagatga	tggcatattt	tgaaaaattca	tatagtgaat	27240
ataactagta	aaagaagttt	tgtttatttt	taaacagaat	tagtttttaac	aacattggac	27300
ttccaaaagg	ctctccgctg	atttcttctt	gcgtctttgc	gaagtgtcaa	cctgcataaa	27360
cctagagacc	tggttgggga	caagattggg	gggttacatg	aagttaggca	gatactcatg	27420
gatactatcc	agttacctgc	caaggtatgt	ttaaaaaaag	aaaaagtga	tacttactcc	27480
cagaagaacc	actgtattat	tggctttggc	tttatgtgtc	agcttgccca	atctccgtgt	27540
gagtcaacaa	gtgtttactg	agttaccaaa	taaatgtctt	aacactattt	taggtacttt	27600
aacaaatttt	aattttatta	attaattttt	tattagaatt	gagacctcac	tctgtcatct	27660
aggctggagt	acactcacag	ctcactgcaa	cctcaaactc	ctgggctcaa	gcaatcctcc	27720
tgctcagcc	tccccagtag	ctagaactac	aggcatgaac	caccatgccc	ggccaaactc	27780
ttaattttct	tagagacgga	gtcttgctat	gttgcccagg	cagacagatt	ttaatgtgta	27840
tgatgcagtc	tttgatgata	agaaacttat	aatggaaagc	tgaggtgata	gttacagtaa	27900
atacattttg	ctgtttgctt	taactattca	aattgtagta	aattgtagta	aagcaagatg	27960
aactgtctgc	tggtatttga	gcagaaatgg	ataggaataa	actaggaggt	agaagagtta	28020
tcaaggttca	caggactgat	gggtgaagct	agattttccag	acccgggatg	tcagtccttg	28080
aaaagcagac	ttggcaggca	tagacgaggc	agatagcagg	ataaaggaga	caaatgtaga	28140
ttgttcttca	gaagatcaga	tggtagagtc	taggaggtag	tgtgttttaa	tcagagatct	28200
gagaggcaaa	gatcattgca	tgagatcagg	gacctatgca	aaggagttag	aaaaaaaaact	28260
gggttaagga	gcctgctgca	tggcaactcc	tgggaacagt	ggccactggg	gcctgggaca	28320

tggtgattgc	agcccaggac	tggtaaaacc	agtgtgagag	aacatgggta	tggaagtact	28380
agctagcagg	atcatgaccc	cgatgctggg	atggggcatc	aagcattagt	acatggagat	28440
tcagtagcatc	cagatgcagt	acatggagac	tatatgcgta	actgctgact	ttgggcttct	28500
ttcagattgg	agcagaggta	gaggtgagtg	ggaatattct	caatagaggg	aactaaatag	28560
gcatacctaa	taaaggagac	caggatattg	cagacagtag	cctcatgttt	ggctcacctg	28620
ttcaaaaagt	tctcttggtc	ttgagcagtg	gtgccttaaa	aggtaacttg	agaagcagtc	28680
gattattttgt	tcagcctgga	gactcctggg	atattttact	atccttgatt	gaatagattt	28740
aaatgtacac	agctctcata	acttgcccca	tgaagcatat	ccatgaaagg	cactataact	28800
gttaaaagat	tggtttgtac	tttttaaatg	tagtactttt	aataaaaacag	gaaaaataga	28860
agttctgtag	cagttatatg	cattttatat	agaatgtgtt	cttaattgga	aaaaatttgt	28920
cgtagttcct	ttgagttcat	ttacagtttt	tagtaggaat	tgtattttct	actgttgtag	28980
ttgctgttac	taaaagaaaga	tggtcgtgat	taccatctga	attttttttc	tatacattga	29040
tcttttagctg	ctacttagtc	atttctgttt	agacttgagc	tctttttcat	attttttttt	29100
tttgttttctc	agtatccaga	attatttgca	aacttgccca	tacgacaaag	aacaggaata	29160
ctggttgtag	gtccgcctgg	aacaggaaaa	accttactag	ctggggtaat	tgccagagag	29220
agtagaatga	attttataag	tgtcaaggta	tggtgtctac	ttatcttctt	tttttatcta	29280
ggtaaaaatta	acataaatgc	agttagccat	ttcaaagtgt	aaattcactg	gcatttagtg	29340
cattcacaaat	gctatgcaac	caccacctct	ctctaatttc	aaaacttttt	cattccactc	29400
ctcctcttgc	ttatccctcg	gcaaccattc	atctgctttt	tgtctctatg	gatttgccctt	29460
ttctgtatat	ttcatataaa	acaaatcatg	caatatgtga	ccttttttgt	ctggcttctt	29520
tcacttaragt	aatgttttca	tggttcatcc	aggtagtagc	atgtatcagt	acttcattcc	29580
tttgcattgac	tgaataatgt	taccataact	tgtttatcca	cttatcagtg	gtgaacattt	29640
gaattgtttc	taccttttga	ctattatgaa	taatgttgct	gtaaatattc	atgcacaaat	29700
ttctccacgg	atatgttttc	atttctcttg	ggtataaaact	gaggagtaga	attcttgggt	29760
cttagggtaa	ttctctaact	tttcaaagaa	ccaccaaaact	gtctttcaca	ccaactgcac	29820
cattcccact	agcagtgtgg	gggggttctg	attctccaca	tctttacca	caccattatg	29880
tttctcaatt	gtgggctagt	ctcacatttg	gaaagctagt	gggagcagcg	atccatctat	29940
taaaagtgtg	atgaaattga	gtaatgagcc	acctctctct	tgtagggtct	attatgttct	30000
tgcttaaggc	aatcttcatg	cattgtgaac	agaattatac	ataaatgctc	agataaaaagg	30060
gcaaaccatt	cttaaaaggga	gtagacaact	agaggcagga	gaccatactg	aggcaggaag	30120
ctgggggtttt	tatgggtctg	ttacttttga	ctatatctca	ccattgcttt	tgtcaaagtg	30180
agactaggtc	taagtttttt	tcagggtataa	ggtgagtggt	gtaattaagg	ggcatgctag	30240
cagatcattt	tggttaaatg	ttcacagtcc	accactgggt	tgtcattgtg	gtcgcagatc	30300
cagtatctta	gctgtgtaat	ttcagacatc	agcaatatta	gtttaacaaa	gggcaattag	30360
attccaagac	aaagggaatcg	tgtattattc	tagccttatt	caaacttgat	ttataaatca	30420
gttttagtaat	ttattttattt	gtttctgtat	ttatttttat	ttctttgaga	tggaagtcca	30480
ctctattggc	caggctggag	tgtagtgtatg	caatcttggc	ttactgcaac	ctctgcctcc	30540
tggtttcaag	ctattctcct	gcctcagcct	cccagtagtc	tggtgattaca	ggctaatttt	30600
tgtattttta	gtagagatgg	ggtttcacca	tgttgccag	gctggctctg	aactcctgac	30660
ctcagattgat	ctgcccgctc	tgccctccca	aggttctggg	attacagacg	tgagctaccg	30720
tgcccagctc	agtttagtaa	tgtataactg	ggttttaccc	agttgtaaat	tactcttttg	30780
tcgtgttttt	ttgagaactg	gcaatgacgg	agaaactaaa	agtgccaggc	tgttgccctg	30840
ttcctgttat	tttgcccttag	tttttttttt	tttttttttt	ttctctgaga	ctgagctctg	30900
ttgtgttacc	aggctagagt	ggagtggcat	gatctcggct	cactgcaacc	tctgcctcct	30960
gggttcaagt	gattcctgcc	tcagcctccc	gagtagctgg	gattacaggc	gcctgccacc	31020
gcacccggtg	aattttttgta	tttttagtag	agacgggatt	ttaccatgtt	ggccaggctg	31080
gcctcgacct	cctgacctca	tgatccacca	gcttcggcct	cccaaagtgc	tggtgattaca	31140
ggcgagaacc	accgtgcccg	gtcttgccct	agttatttct	tgttccctcc	tctagtccca	31200
tagttctctg	actgtattga	ggaaatgtaa	ttaaatatta	ttatgttaat	agatatttat	31260
gtgggtgaat	attagaaaatt	ccttatatttg	gtcacatata	ctgatcagta	gttgggtctc	31320
tgagatagtg	gattttttcac	tagagatgac	tttaggacct	attcagggtt	tttttaagat	31380
cccaatttaa	ggaagacta	ttctcattat	tgtatttgct	atatgcaggg	aaattttatt	31440
cgaaagggtt	ttcagttggc	ttttaggggaa	gattatata	tctctttttt	tttttttggc	31500
cttttccac	atgttctaaa	aatgatatat	tctttaactc	ctatgaaaat	acattgtttc	31560
agtaattgaa	gatgctgatt	aaagtcatat	ctctacacat	tttttaaaat	ttgagataga	31620
tgggactttg	tcccttctta	caccattcac	ttattcactt	ggaaaaacta	ttatccaata	31680
cttatgtggc	agacactgtt	tctggcacia	gggattcagc	agtgaacaaa	actgcctttt	31740
tggagtttac	attctactag	tggaaagcga	caacaagcag	atagacacat	tcagtatata	31800

attcactgtc agatggtggt ggtaagtcct atgtaggaag aaaagcaggg taaggagggt 31860
 tggagtaact ggagtggatc atagatggac ttgtcaggaa aggggtttctg aagagggtggt 31920
 atttggggcag agatctaaat aaaatgaagc aacaagccat gagaatatcc gggggaaaat 31980
 gttctggggca gaagcatcaa gcatagaact ttgtgtatga tatttattct agcacacatt 32040
 aattttaaaa atgtataaaa gacatccatt taatcatatt aaagatttcc atgattcatt 32100
 tagacttagt cagaaaccaa atttatattt tctttttaaa taattttatc tcaactctta 32160
 ttttacccaa tagggggccag agttactcag caaatacatt ggagcaagtg aacaagctgt 32220
 tcgggatatt tttattagggt tggtagccta tgaatgtttt taaagtaact gactctgtta 32280
 ttatttatca atcagtgctt tttttggtct tgttttttga agaactgata tttgaaacct 32340
 gtgggttatg tgaattatta ataagctaga ggacgtggat tctctatttc atcaataaat 32400
 acaaaacatt ttagatatta aatttttgaa attatttgggt tttgttttac aatagaaata 32460
 ctctctcaaag tggaaatcgaa gtggttatct aaagaaatct cagagtagat tcttatatga 32520
 agcaataaat tgccccctaat ttatctctaa attttgttaag ttctaaattc ttttttcccc 32580
 cagtttctaa tttatctctt ataagtcagg agtccatctg gccaatttta tttcagttag 32640
 tgaactattt ttgcataat taaaaaactg tatatgaata cagaagatgg taatttagga 32700
 tgaaaataat tattcaaatg tgatagcatt atggggaggt ttaaaataaa agttactgtt 32760
 ttattcttcc aaaaatttta ttataaagta tacagttaag agaataataca taaaatacat 32820
 atgcagctta aggaagaata ataaaatgaa tacttcatgt attcaccacc gagtttacca 32880
 ggaaaaagca taacacaaat aaacctcttc cacgtaattc ctgggttaaa gagaagttat 32940
 agtggaataat atttgggagc aaacgataat gaaaatacta tccattaaaa ttgttagatg 33000
 ttgcaaaact gatttcaagg aaaatttata gtgttaaag tttagaaaag aaaaagggtt 33060
 agaagttaac cacttatgta tctatctcat gaaattagga aaattataga tataaactaa 33120
 aaaatatgtt aaaagggaat taataaagat aagaatgaag tttaatgaaa cacaaaacag 33180
 agaagctcac aaagccaaga tttatttttt gaacaccgag tacaattgac aaatctctaa 33240
 caagtttgat taagaaaaaa gaaagcatga ataaacaatt ttagggataa aaagggaac 33300
 atcgctaaag atatcccaga aatgtaaaag ataataaggg aatattatga aaatattcat 33360
 gccaatatca ttgaaaactt aggtgcata gacaaaaaca aaattgacca aaatttagga 33420
 aaaaagaaac aaaaactgag tagtctgtga acttagtaaa aattgagtta gaaaagttaa 33480
 agaagtcttt acacaaatca aacatcagac tcagttttct aggagagttt tgccaaacat 33540
 tcaagtagca gataattctg gtctattttt ggccccagaa gatataattt acttgccatg 33600
 catttaatga gatagctgtt gatttttttc aatcacctgt acaggtgttt tatattaggt 33660
 gttattcgcc agacatctag tccacctgtt gccagatatg gaattaatat tcaattattt 33720
 tgaattaaaa ttgtttaata aattaataaa agttcaaatt attaaaaaag 33780
 taaaagaaat aaaatatatt ttatagagag cccttacaaa acagtaccaa cataatgagc 33840
 tttccaaatt ttgaatgggc aaaataaatg aataggcatt tcacaaaaga aggaagggtg 33900
 gccataaagt atatattaat ataaaaatgg ttacttgtaa taggaatcaa aagtgtttga 33960
 cttattgact aagagtcagt ttttgttttg atccctgtta gtctatccag aaggcatggg 34020
 tcttaataaa caccttgacc tcaacagttt actgaataca agggtaattt catatgcctt 34080
 gccttcttta aggggtttgtt gtaaaagata aataaaatc ataaatatat ataaatacat 34140
 ttatatgtat ttatatgtaa ttacatacaa cttgccttct ttaagggttt gttgtaaaaa 34200
 ttaaaagaag tatataaata tatataaata cataaaataa atacattcat atatgtatat 34260
 gaaatcactt tgccaactat gaagcctgat tcaaatatga aatgttggtt gtttttccca 34320
 gagcacaggc tgcaaagccc tgcatctctt tctttgatga atttgaatcc attgctcctc 34380
 ggcgggggtca tgataatata ggagttacag accgagtagt taaccagttg ctgactcagt 34440
 tggatggagt agaaggctta cagggttaata attataaata cagaaataga atgttataac 34500
 aaaatgtcat catgtcatca gattttggta aaaaaatgtt cttttttcct ctagggtgtt 34560
 atgtattggc tgctactagt cgccctgact tgattgacct tgccctgctt aggcctgggtc 34620
 gactagataa atgtgtatata tgtcctctc ctgatcaggt gacaatttca tatttagagt 34680
 ccaaaaccca acaaatgcta cactctttcc ttgtgagctt tacttctgcc aggtaatggc 34740
 aattgtcctt agaagaccag ctttcttagg gaaaagcttt agccactgtt tgctcaaagc 34800
 ataaaagat tctgaattag atgcaaagcc tttttttggc ctgagtgcaag tctgaaaact 34860
 ttgtaatcct ctgtgttggt ctgattgggg aaaaaaaaat gcaagaaacc taatgtatta 34920
 tattttcaca ttatcttctg ttcaaagatt acatacttcc attatcctgt caaaaaaaa 34980
 actctgatac agaatcaagc atgtgaatcg taagcatgta agcaggtttc atagagataa 35040
 tttttcaact ctctcttgct ctgtgttggt ccaactctta ttctccaatt tagaagcaaa 35100
 caaataaatg aatgaaagaa cagatagaca aatgaatagt caaaggtata aagtatctgt 35160
 atatatgtta catgtagcta ttatttaaat tatttagatt ttctttttga aataccttct 35220
 tggcacactt gcctaaatct agaaaaataag cactgtgtga ataagaaatt atttacactg 35280

aatatatttgt	agggtttttg	gtttttgttt	ttcagacaag	gtctcacttt	gtcaccagg	35340
ctggagtaca	ctggtacgat	cacaactcac	tcgagcctct	atggcccagg	ctcaagcaat	35400
ctccccacct	cagcctcccc	agtagctggg	accacaggca	cacgctacca	tgcccagata	35460
atttttattat	taattttttg	atagagatgg	ggtctccctg	tggtgcccag	gctttcttga	35520
actccagggc	tcaagtgatc	ctcccacctc	aacctcccaa	agtgttgga	ttacaggcgt	35580
gagccaccat	gcccagcctt	aagagtgttt	gattttcatt	cattttccta	tatatattat	35640
ttctgttggg	gaaaaaatc	caagggaagat	aaatagtagg	ctgttggtac	atttctcaac	35700
ttacttataa	agcttttttag	atatataagg	ttaatttatg	aagaaaatca	taagatacac	35760
aatttaagat	aatatatttta	atttttatttt	ttatttggtta	aataaaatttt	tctcctttca	35820
ggtgtcacgt	cttgaaattt	taaatgtcct	cagtgaactc	ctacctctgg	cagatgatgt	35880
tgaccttcag	catgtagcat	cagtaactga	ctcctttact	ggagctgatc	tgaaagcttt	35940
actttacaat	gcccgaattgg	aggccttaca	tggaatgctg	ctctcgagt	gactccaggc	36000
aagttatatg	aggaagtgtg	tatgacattt	tatgagtgat	aaaagaagta	caatgtcaaa	36060
atttccacct	taaaaaatgc	tattttttaa	acaactttgg	taaaaactgt	tagaaacata	36120
aatttaccct	tagttgaatg	ttccatagtg	ggaatatggg	ttttgcagag	aattttataat	36180
tatgaagttt	gatgtctgtt	tctttaacat	tacctaata	ttggcaaaaa	catgttggtg	36240
tttgcaagga	tattatttaa	attgggatac	catgaattaa	atactacaaa	caaaaaataat	36300
tagagttttt	tgtttggttg	tactttaact	tttaaaaaat	aatcagttaa	agttgttgtt	36360
ttgaagctca	cattgttcca	atctggccaa	taggagcccc	ttttgtatgg	ctcctgtatc	36420
tttatgacat	gtcctcatca	ttcttgaatc	acttctcac	ttccagatac	agtaagttat	36480
tcttgccag	gtgcagtgg	tcacgcctgt	aatcccagca	ctttggcagg	ccaaggcagg	36540
aggatcattt	gggcctagt	tgagaccaaa	tcagtgttgc	acaaaactgt	cccactatgg	36600
acaacagagt	gggatcttgt	ctctgtgaaa	aatttaaaaa	ttagctgggc	atgggtggc	36660
atacctgtag	tcctagcttc	ttgggagagg	ctgtggcagg	aggatcgctt	gagtaaattcc	36720
aggatgcagt	gagccatgct	tgtgccactg	cactccagca	tggaatgacag	aatgagaccc	36780
tgcccccaaa	aaagaaaaat	attccttggt	tatcttgtac	ttctgtatc	ccagccctag	36840
catcacacct	ttctctaaa	acagtattat	gattttaata	tttacagttag	atatttgaac	36900
tgttacatta	tagactttac	catatatttt	ctaggaagga	ttattctatt	actcttcttt	36960
accacatttg	tttggaatgt	ctacagaacc	tacagtttct	aaatcagaaa	ctccctaggt	37020
ttttgctatt	ttggcaagcc	attgaagtgc	ttccctctcc	ctttactacc	agaaaggtgt	37080
gtattttgtag	agctctctat	aatgagaaa	cactctataa	catggttgat	tcattcattt	37140
ggagtagaaa	agtatgaatg	gaaagtcaga	gacataaaaa	taaagcccag	aggtctgagt	37200
cttagcttca	ttacagactt	tcttggggga	tggttggtaa	attatctaca	cattctatct	37260
tgtctttata	attttaatag	ttaaaatttt	accatgtgcc	tcaaaaccgt	tagagaatta	37320
atgagctctt	tgaaaaatgc	ttctaagttt	cttgtattgc	tctaatagaa	tgctatctat	37380
gttattattt	atttctgaga	ctaaaattgt	ttacatcttt	aaactgggtg	tccttttggtg	37440
tatttttagga	tggaagtctc	agctctgata	gtgacctaa	tctgtcttca	atgggtctttc	37500
ttaaccatag	cagtggctct	gacgattcag	ctggagatgg	agaatgtggc	ttagatcagt	37560
cccttggttc	tttagagatg	tccgagatcc	ttccagatga	atcaaaattc	aatatgtacc	37620
ggctctactt	tggaagctct	tatgaatcag	aacttgga	tggaacctct	tctgatttgg	37680
tatcttgtgc	agtcattcatt	atacagttct	gaaatataaa	gctatatgtt	ggtgtaaagt	37740
tgagtgatt	tctctcctaa	ccagccccac	atattcttcc	tggttggttg	gttcttcagt	37800
aaaatagtct	tgtttcttgc	ttacactaat	tggaattttg	cattccttgt	taagattttc	37860
aagacagggc	tgaggagcaag	gaaccaaagt	agcgcgtgg	tgtgattacc	tttggtttct	37920
ttgaggtttc	tcttacctag	tggcttttaa	acatctttag	gagcagttcc	attttatagt	37980
aaacttaaat	tctgttatca	tgaacagttg	aggataatga	ataatttgat	acaataatgt	38040
aagaaattcc	tgaaaaacaaa	gtgttatctg	tgatactttt	gctgcatagt	aagcacaatg	38100
aagtgtactg	ataatgtttc	aacaggaaa	tgttttgatt	aaatgtgggc	agtatcactg	38160
ttctactagc	attcaacatc	tcttctaaaa	attaatagt	gttccactga	attttattgg	38220
tacatgtaac	atctgtacat	gtgtttggtt	atctatatgt	ttcctgggtt	tttgatcatt	38280
tgctttatta	atttaggctt	tttttttttt	tttttttgga	gacagttctca	ctctatcatc	38340
cagactagag	tgagtggtga	caattatggc	tcactgcagc	cttgacctcc	tggtgcttagg	38400
tgattcttcc	acctcagcct	cctgagtagc	tggtgactaca	ggcacatgcc	accatgccc	38460
gctaattttt	gtatgttttg	tagagacgag	gtttcaccat	attgcccagg	ctggtctcaa	38520
actcctgggc	tcaagctatc	tgcgtgcctt	gacctcccaa	agtgtctagga	ttacagggtg	38580
gagccactat	gcctagccta	actcagactt	taaaaaatata	aaagcaattc	atttttattc	38640
ccaaggaacag	taagggtggg	gtttaatttt	agtccttaaat	tctgttttta	attttttcta	38700
tttagaaatg	tcccagaac	ttagtataac	tttactttct	gaaaaatgaag	aaacctgtcc	38760

ttgggcatta	gtgtgttggg	tttaagcaac	aaagttaaaa	aaacctaccc	tgtgttatgg	38820
caattttcac	ttgatgggtg	ttctataaca	caggtatcag	tgaaccttta	taaaagatga	38880
acaacttttc	agcttgctta	atttcagtta	attaacatgt	atacttatct	atgttaatgt	38940
tttattgctt	aaaatgttta	atttttatat	ttggtaaaca	gatagttttt	tctctccccc	39000
tcttccttcc	atctttcatt	actacaattt	accatgcaga	gctcacaatg	tctctctgca	39060
ccaagctcca	tgactcagga	tttgccctgga	gttccttgga	aagaccagtt	gttttcacag	39120
cctccagtg	taaggacagc	ttcacaagag	ggttgccaa	aacttacaca	agaacaaaga	39180
gatcaactga	gggcagatat	cagtattatc	aaaggcagat	accggagcca	aagtggagta	39240
tggctttttc	ccccctatta	taattgttaa	aacttcttaa	aaattgtttc	acccttttga	39300
tatatatttc	tttgacttat	aaacgagcta	tatttataaa	caagggacca	gaacacatta	39360
actcagtcac	ggttatgtgc	ttccttgctt	tcaatgtttc	attatcttat	aaggaagaga	39420
acgtatggtc	tcttgaaaaa	actgacaata	agaagtaaca	actggactac	cacatttttt	39480
tttacatcct	taatttaact	cttcgtcaat	ttcttttttt	acttaaggag	gacgaatcca	39540
tgaaccaacc	aggaccaatc	aaaaccagac	tggctattag	tcagtcacat	ttaatgactg	39600
cacttggtca	cacaagacca	tccattagtg	aagatgactg	gaagaatttt	gctgagctgt	39660
aagtaacaga	ttctgttttg	gaagtacagc	tactattaca	agtgcacatg	atttacactt	39720
aaacctttta	agttcgtggt	taaaaataaaa	atattttgaa	tattttaaag	ctaattcaaa	39780
aaatatgtgt	cgtagctatg	cattaaaaaa	ccccaaaatg	tcagaagtac	agaagtcaaa	39840
attgagtttt	cattaaccag	ttcatttgat	tatatattga	ttattcataa	tggactcatt	39900
taatttttagt	aactttgggc	tgggtgctgt	ggctcatgcc	tgtaatccca	gctctttggg	39960
aggccaaggc	aggtggatca	cctgaggtca	ggagttcgag	gcaagcctaa	ccaacacggg	40020
gaaaccccat	ctctactaaa	aatacaaaaa	ttagccaggt	gtgggtggcat	gtgctgtgag	40080
tcccagctac	ttgggaggct	gagacaggag	aattgcttga	accagggagg	tggagggtgc	40140
agtgagccga	gattgcacca	ctgcactcca	tccagcctgg	gccacagagc	gagactgtgt	40200
ctcaaaaaaa	aaaaaaaaaa	atttagtaac	ttcgaagaaa	taagaaggaa	aattaaaagt	40260
tgaagtgat	tctaattgat	agtttataaa	attttgttat	aaaaatacct	gttttgcctt	40320
caaaaataat	tatattaata	ttttattgac	ctcaagaaca	tttaaataca	ttcagattta	40380
ttcattttgt	gaccacattt	gttatacatt	ggattttaaag	gatccttgca	attgagttta	40440
tggccaccta	tgcatctgag	acccatggac	tgggaaccat	tctaggtcaa	tgattcagtg	40500
tgattcaatt	taagagatgt	ttattcctgg	tctttagaag	ctgctacctt	ttgttatcta	40560
attttgtagt	actttgaagt	atgtatgtat	gtgtacatac	gttagtgcta	tgtattttat	40620
aaagaagaat	cagaaaacag	aggtaaggaa	aaataaggaa	acaaatttct	gttaagccca	40680
ccacctccca	aagcatattt	gtttatatgc	ttatatatgt	tttctatta	tggtagaagc	40740
agtctgtaca	tattgctata	tagcagtcct	cctttatcca	catacatcct	gaaaattgtt	40800
ttacatttta	aatgttaact	actttattgt	ttttaaatgt	cattttatag	tgtagctatg	40860
ccacaatatc	caatttttag	acatttaaat	tgctcccagg	caatgtggta	atgaacattc	40920
ttgcagctga	atatatgcac	atatctaatt	gtttcactag	gatagagggt	gaattgtata	40980
acagggagct	cacatttttt	aaggcttttg	aaatgtattg	ccaaattgcc	tgccagatat	41040
actgcacat	cactaacatt	gtgtgttgca	gtatttttct	aaacttggcc	cttttgattt	41100
tagaaaaatg	atatcaataa	tttacatttc	tttgattaaa	gtgtagaagt	tataattttt	41160
catattattc	attgtcattt	gtattttatc	ttttctaact	tgtctcttca	tcccctttgc	41220
tccgttttct	attggagtgc	aactttattt	gtaagaattc	tttttaattt	ctgtgactgg	41280
aatttttttt	tctagtttgt	tatttcccgt	tcatttctta	aaatataatt	gtgtttgcca	41340
acaatccatt	atcttttggt	ttgtaatgg	agtattttata	catattaaat	tatctctttc	41400
ttttttcaga	tatgaaagct	ttcaaaatcc	aaagaggaga	aaaaatcaaa	gtggaacaat	41460
gtttcgacct	ggacagaaa	taacttttagc	ataaaatata	cttctttttg	atttggttct	41520
gttaagtttt	ttgatggctt	ttccatatgt	tgtaacagga	aaaaaatggt	gtctatgaat	41580
ttcttcttaa	tttaacaaat	ttgggttaatt	tataaaatca	cagattggta	aatgctataa	41640
ttatgtaatg	atcaggattg	agattaatac	tgtagtataa	attgggacat	tataacagat	41700
tccatatttt	atttcctaaa	atctaaattc	agtctttaat	gaaataatat	tagccaaatg	41760
gtggaactaa	tttatttctt	ttgaggaaaa	gataataaag	aatgtaatta	aattttaaatt	41820
tcttggaatt	cccagttgta	tattcatcac	ctttgtagca	tttgacaaat	tatttgctta	41880
gcagcttctt	cactgttttg	aaataaaaata	tcctattacc	tactgatata	attatctggt	41940
ctttgtatat	caaaaaatgt	gaaattttaca	cataattcaa	atacatttaa	ttatccgctc	42000
aaccagaaat	gaaatcacat	ccctctacta	tactacatcc	agctccaagc	ccaagatatt	42060
taaatgacat	ccattcctct	cctagttcca	gttatgattt	tatcttgata	ttctctcata	42120
tatgaactaa	attataaagt	tagccaccat	caatacaatc	tgcgtatcta	atatcttaac	42180
tatatagtaa	tggggtaagg	gaacagcaaa	aaggagaaca	ttaattaaaa	tatacaagta	42240

```

agcctgggca acatagttag accccatctc ttaaaaaaaaa aattagccat gcatgatggg 42300
atgcctctag tcccagctac ttgggagggt gaggtaggag gatcacttgc tcccaggagg 42360
ttcaagggtc taaaccagca aagctcagaa tcccaggagg tagaaacaaa gacttagtgg 42420
atcactagta ttaaaactgag acacgtcacc ctgcattgca ctttgtttct cagttctttg 42480
atgaaatcac tgagctgaca tacctgccct cttttcacca taaagttagt ttcatgatca 42540
gaagcaatgt ctatgggata gcctaacaaa caatgtaaaa accatttagt aagttcatga 42600
agggtgggtg ttgtaaaaaat ttggagaaca tacaaaaaaa atacaattcc aaggtgtgtc 42660
ccctccagga aggacaaaatt gctgcctgct ctgtgataga agaggatcag atgtaataca 42720
cctgccgtca gacttgggct gttctctcct gggtgtggac ttgcctgggt ggtcactgct 42780
gctgacaagt aggctgtcaa tatagctggg ttgtcatgtc agctgtgggt aggggggaagt 42840
ccacattgtg gaggccacat ccctgcactc ttggccaatt tgaccatgaa tcttaagcac 42900
tggggtggct ggaaaagaca gccgattgac atccatacag aggtcatctt gaccacttga 42960
ttagtataag cactgaaggc ttttaactga gcattcacat aggacacaaa tattctgatt 43020
ctttgggccc attccaagaa ctctgggcat acttttcctc cagacctcat acccagttgt 43080
gttctttcca aatttctggg catctggtta tggtattagc cactatctgt gaatcagcat 43140
agatttttat atcagacatc tctacctcct gacagaatgg aggagatatg ttacttaaca 43200
attctgttcc cttggaagat ttctgtctc cactgtttgt aagggtactt ccctcaatgt 43260
agcagtaatg ctttctactc gatgggaagt cacagtggaa ttctgggtct ccaagaatta 43320
gtgttagtgc atacacagtg tctgataatc ccagagtgt ctggtgccct tggatcctgt 43380
gaagaaggct tggagaaaag aagattcatg gcaagaactt gtgatgtgat gacagggcct 43440
tttctctggc tcttcattct tagtctgacc taggtgtgag aattagggtc ggggccatga 43500
ctataattgtg gtgactcaaa ccaggccttt gttactaac tgggagattt ttacattgta 43560
agaatcaagt aggatctttg cccatgtatt ttggtcttaa gaacacaaat gatatggctc 43620
caatgactgg aggaacacca ggttccttgg tctcacgtg atttagataa aacgactgtc 43680
aggcctctga gcccaagcta agccatcctc cctgttgacc tgcacgtata catccagatg 43740
gcctgaagta accaaaagaat caaaaaagca gtgaaaattg cctgttcctg ccttaactga 43800
tgacattcca ccattgtgat ttgttctctg cccacttaa ctgagcgatt aacctgtga 43860
aatccttct cctgggtcaa aacctcccc actgagcacc ttgtgacccc cgccccgtcc 43920
cctaagagaa aacccccctt gattataatt ttccactacc caccacaaatc ctataaaatg 43980
gccccacccc tatctccctt cgctgactcc tttttcggac tcagcccgcc tgcaccagg 44040
tgaaataaac agccttgttg ctacacacaa gcctgtttgg tggactctct tcacacggac 44100

```

<210> 64

<211> 16869

<212> ADN

<213> Homo sapiens

<400> 64

```

aagcttttagt agagatctca aaaatgggtg gatggtagca aattactaag aactctcaaa 60
gtttctaaag ccttagtttc agcttgctag aaaacctatg ttgagtatta tggctagtct 120
catagttgag ttgggaaatg tctttgagga gacacttttt cactttgtat tcatctgtac 180
attttctggt acttgcatc tgatcatgtc aggtcatttag agcagggtaca tttttataac 240
tggaatgttt atgtgtagtg aagctctgag aggactttgc attagatctc agcagcataa 300
tcagaagggt gtcccttctc tcagcaattt ttaagctaat agtagcagaa attgcagtgg 360
aaatagactg ctttgccaca acattcagaa aatcatttat ctttttattg cagttcttgt 420
caccaacaaa tacatttttag tacttctcaa attgcagaac tctcataggg ctgggaaaat 480
gcctgtagac acatacatat tatgaatgtg ctaatgtttt ttgtattttc atagccatc 540
aaagctcctg agtcagtttc cactataatc actgcagaat caatcttcta caaggtaagc 600
ttttgtagag ttactgaagg aagagtggg cctagtgggt aatgtgccac taaaatgttg 660
gattagtcta aaggtctctg ctactcttta ttgtataaag gtgtgattat actttttgtt 720
cccttcttag ctgttttccc ccataagtgg ctgttattaa aacatctcat cttagagctga 780
agtgggagga gaaagtgcct actgacacat gatgtgagga tcttaagtat ttttttttag 840
tgtagattgt aggaattatt cttaaaatgc tgattgtata gtgtggagcc atggaagact 900
gagccgttag tgcatgggca ttgaagaatg agaaggacag agacaggatt tggactagta 960
gaggttgtcg actgtggtgt caaatgggta gagtagggcc agagattcta aaatgccttt 1020
aagtggaggt gagctgagta agggcagtag tgaggattaa cactactag aaattcatag 1080
tgagaggaat tccaagatgt ttgataaaaa gaatgaggag gtcagggtttc ccagggccaa 1140

```

agtccatgaa	catctgatac	ctcagtgaga	gaagtgacag	attgtttgtgt	ttaaaccaga	1200
agtcttagga	aaggaattag	aacatagacc	cccaaggctc	ggcaggcctg	gcacggcaca	1260
ggcagcaacc	attgaaggct	atlttggtgt	tcgggatctg	aactgtcatt	taggggacag	1320
tggtgtgagt	tagtacttta	tacttgaccc	aggtggactg	agaaactcaa	gtgatgatgc	1380
ccttaagtat	actttttttt	aagcccacaa	tctatatagt	cgaagtctgt	tcctcccaac	1440
aggggtacac	tggcattcct	cagcagggct	gggaaaaaac	aacaacaaaa	aaagtctgta	1500
cacaggcaaa	catctctctt	atltttccaa	catttaatac	attgttaata	aaatatctaa	1560
agtttagcaa	acagttgctg	tgtatcagtg	gctgagcatt	ttgcatgctt	tatttcattc	1620
agttcactct	atgaggtgga	tactactatc	cccattttct	agatgagaac	attgaggcac	1680
agcgaggtta	attaacttgt	ccaagatcac	atagccaaca	agtcatggag	tgaggcgatc	1740
tcatgccaga	gcttaagcct	agagcatagt	tcctggctct	acagctttag	caagtgactg	1800
gctatgtgac	gaggaccaac	ctctctaatt	tctcatctgt	aaaataggaa	ttgtaaatag	1860
ttactacctc	agtgggtcaa	atgaaatcat	atgtgttaag	cacttagcag	agtaagcact	1920
caatgaatag	taggagttat	cacatcttcg	tattttgtgc	ttaccttcac	agtttacaga	1980
ttaaggccag	aagcaacttg	ttgagctacg	ggtttagtgt	actaacagtt	tccatgtgtg	2040
tctccatgga	aggggtgtgt	ggacctgtta	ttgtgactgt	ctgtactttc	gtattgttgt	2100
ctgccaccca	tgtttattaa	atgataagga	caataatgca	acaaagtagt	caagtaatgt	2160
tgcaaagtgc	cagtattgta	gtggctatca	cagcagtgcc	actggcaggc	agcaccatgg	2220
tggaagtgc	aagaggtcac	tgccagccac	tgagctagag	cccagatcag	gcatgcaaga	2280
ggagcctgag	tgaggagccac	tggggatcac	ggccaagagt	gtgaccaccc	aagaccaga	2340
atggctgagt	ggcctccctg	gagcatggca	gtggcagaac	aactccatga	actcagatct	2400
ggtgatgcct	aaactagtgc	tggtctctgt	tggacccctt	ttctctacca	gaaaccttga	2460
atcctctcag	caaatgagga	gactactcag	atcagtgact	tagtctgtgt	tggtgttata	2520
tatgtgtaca	caacacagca	catattaata	aatacctact	atgtgccagg	cactgcctac	2580
cactggaatc	tttactaag	acattgtttt	tactttgcat	ttctgccttt	acactatgaa	2640
agtagatggt	tgggattcat	attcattcag	catacatttg	aatatgctgt	gttatgcata	2700
gtaagcctat	gataagcaag	tatttctcatt	tagaatttgg	gaatattgat	tatacatgtg	2760
gacaaacaaa	ccataaatgc	aaactattta	tatgataaat	aactttggac	tgatggctcg	2820
gaggaaggac	cagctattga	tgggtaggaa	ctagcaagta	gcggactgtg	gcctgcatag	2880
accagaccca	tccgtagtga	tccagatgaa	acagccaccc	tcagacactt	ggataaaggg	2940
tccaccagga	aaaaactcct	ggcctatcag	gtgctatggt	acagttcagt	tactggaagt	3000
atltcctcaa	aagtgttttt	atgggtgagg	taacacttcc	tacagcttta	ctgtctgcca	3060
agtcctgtgt	tcaagggaag	cagcaatgaa	ttacactgtt	cccgtagtca	aggagctgat	3120
atcttaccaa	gaactatacc	cacttaagga	ggtgctggat	gtcataaaga	tttggatcaa	3180
ccattatggg	tgttcagagg	agagattatt	tccagctcaa	gacccaggga	agaggacata	3240
ggatggatac	cagagtcata	gggaggattt	aacacaggac	atgtacacat	tagttaagttg	3300
ggtataaagt	ggaacagaaa	tgaatgagac	acaaagcctt	gaatgccaga	aatactagta	3360
gtcctgttgt	ggaaggatat	aaaactcaac	tgggagtggg	agagaaaggc	agcagtgagt	3420
ctaggatag	tacagtaggt	tgaggtaaac	atatcctgaa	gactataatc	caaagtattat	3480
ttttggtttg	aatttggttt	ggtttgaatt	catgggtatc	atlttctttg	agtggatggg	3540
tggggagggt	ggcatgtaga	atgcattctt	accaaatacag	catgattttc	aagacagtac	3600
agagaaaaga	ctgctgagct	gatgtaggag	ctttggctgc	agtctctatg	gctttcagca	3660
agccgtttta	ccttactact	gcttcatgac	tgtggctaac	aaagtaggga	tagtacggag	3720
cacagaggat	ttttaggcg	gtgaaactac	taatactctc	tttgtatgat	actataatgg	3780
tgggtacatg	tattatatac	tttgcccaac	cccacagaat	acacagcacc	aagagtgaac	3840
cctaattgtga	actctggtct	ttgatgatgc	tatgtcagtg	tacgttcac	cgtgtaacaa	3900
gtgtaccact	ctagtgggtg	gaggggttat	tgataatagg	ggaggatgtg	catgtgtggc	3960
ggcaggaagt	atatgggaaa	tctctctact	tctgctcaat	tttgcgtgaa	acctaaaacc	4020
tctgtaaaaa	ataaagtcta	ttttttaaaa	agtggggatg	gtattacggc	aatataaaaat	4080
caaaatactt	tatgaacaaa	tcttttctcc	tgatgtaaac	tgcatatat	gcaccctcgt	4140
atgtgtatgt	ataattttca	ttcaaactgt	aaacaacttt	agaattggca	ccaaacatat	4200
aaacactgat	acattagact	atctcgaaca	ccttttactg	accactttga	aaacttgctt	4260
acctattaag	gttcattcat	agctgtgatg	ttctattttt	atlttcaatg	tgggattatc	4320
ttctgtttcc	cccaggaggt	atattaccaa	attgggtgatg	ttgtttctgt	gattgatgaa	4380
caagatggaa	agccctacta	tgctcaaate	agaggtttta	tccaggacca	gtattgcgag	4440
aagagtgcag	cactgacgtg	gctcattcct	accctctcta	gccccagaga	ccaatttgat	4500
cccgcctcct	atatcatagg	taagtttgac	aaatggcaca	ggtttttttt	taacttaggt	4560
aactctccaa	tattatgtaa	aagagtgtgt	tagtcagctt	gggctgtcag	gacaaaaatat	4620

cacagactga	gtggcttaaa	caacagaaaag	tcactttctc	acagttgtgg	aggctgaagt	4680
ccaacatcaa	ggtgctggca	acacggattt	ctggggaggc	ttttcttcct	ggcatataga	4740
tggtcacctt	cttgctgtgt	cctcacatgg	cctttcatgg	agtgagagct	ctttggtgta	4800
tcttcttata	aggacaccat	ttctgtcaga	tgaggggcccc	acccttatgg	tttcatrtaa	4860
ccttaattgc	ctccctaaag	gtctcatctc	caagtaccat	cacattgggg	attagggctt	4920
caacatataa	atthggaggg	tgccgggggg	ggatgcaatt	cagtcataaa	caaaaaaagc	4980
atgagtatta	ttaaagtacaa	aaaaattaga	gagctttata	gaaaaataga	ggcattttat	5040
gtagctggag	tgtgagtgt	atcagttatt	ttgagttaga	gcaatgtgca	tctactaaga	5100
agtggatgg	ataagatttt	tttgagtgta	cccagggtta	aactgtacta	caagaatgta	5160
ttgctcagga	actaggttat	ttaggttact	tatttataca	aacctattca	aaaataattt	5220
aggaaaagaac	tatcccagtt	atcccatact	tgcaaatctt	caatatgtgt	gcctctgcat	5280
gctacacatg	tcatcttagg	cctttatagt	ataaaggctg	atagttgaaa	tgccagctgc	5340
tgtgcttttg	ttaatthcaa	agctgccaaa	acagttgtga	gatagactca	caagaattta	5400
ctgattaata	caatttttaa	agttttcaga	tttttacagt	tacttcagac	tttttatctt	5460
tctgcagtga	gcatgcatca	ttacttttgc	atcctgagaa	caagcataag	tgtgtttttg	5520
gagagaactc	cagggacaaa	taatatacca	ctgttattct	cacctatatg	tcaagtttga	5580
tacattacca	aacaattcta	gccttctgct	tataagtata	tagaattttt	ttttacctta	5640
tctatggatc	aggatctcag	cagaggcagt	gatgtatcag	aatcaccttc	gggattcctc	5700
tactgctctc	tctttctaat	ccccagattc	tgatatgcat	ccttgctcta	cagcgaggca	5760
gcatggcatg	aggtcagaac	accagttctg	gagccagact	gtctaggttc	acagcctgcc	5820
atthaccggc	catgtgactt	tggcaagttt	cttagtctct	cttgctcac	tttctcata	5880
tgtaaaatgg	gaataataat	agtgcctacc	tcagaagggt	gatgtgagga	atgaaggat	5940
tgatacatgt	aaacttagag	cagtgtgggt	acaaaaataa	catgatgcaa	gtgttcaatc	6000
actgtttttg	ggagaatgcc	atattcttta	agccgttaaa	gaagaaaaaa	tgattaagaa	6060
taattthcaa	gtaatgcatg	tttcaagggc	taatgccagg	ttgctcccag	agtggctctt	6120
cccagtgctt	agaaatttta	acatcttatg	aaaatgatat	atatggtcaa	aaatgtattt	6180
aacctttccc	ttggctgcct	tccagggcca	gaggaagatc	ttccaaggaa	gatggaatac	6240
ttggaatttg	tttgtcatgc	accttctgag	tatttcaagt	cacggtcatc	accatttccc	6300
acagttccca	ccagaccaga	gaagggtctac	atatgagctc	atgttggggc	tactcctgca	6360
ataacaatta	aggaatcagt	tgccaaccat	ttgtagttca	caaattaaaa	ctgggtttcc	6420
aggcctgggtg	tggtggctca	cgctgttagc	cccagctatt	gcaccactgc	tctccaagct	6480
gggcaatgga	gtcagattct	ctttcttaaa	aaaccacaaa	aaaactggat	ttccagttct	6540
ctaataattct	tagtaccaca	agatatgtca	taggtattct	taaatgaaat	tcttagctgg	6600
aaaagtgact	aaaaagtttt	tctcctgcta	cctagtaata	aacaaatcat	tgtttattac	6660
tggtcactta	gaaaattaaa	agggataggg	ccaggcacag	tggcttatgc	ctgtaattgc	6720
agcactttta	gaggccgagg	caggcggtatc	acctgagggtc	gggaagtgga	tcgctgagg	6780
tcaggagttc	gagaccagcc	tggccaacat	ggcgaaaccc	cgctcgctact	aaaaatacaa	6840
aaattagcca	ggtgtggtgg	catgtgcctg	taatcccagc	tatttgggag	gctgaggcag	6900
gagaatcgcc	taaaccagg	aggtggagggt	tgtagtgaac	caagattgca	ccgctgtgct	6960
ccagcctggg	caacagagt	agactcttgt	ctcggaaaaa	aaaaaaaaaa	aaaaaggctg	7020
ggcacagtgg	ctcacgcctt	taatcccagc	actttgggag	gctgaggcag	atggatccgc	7080
tgaggttggg	agttcgagac	cagcctggcc	agcatgggtga	aacctgtct	ctactaaaaa	7140
tacaaaaatt	agccaggtgt	ggtggcgcac	acctgtagtc	ccagctactc	gggaggctga	7200
ggcaggagaa	ttggttgaac	ccaggaggcg	gaggttgag	tgagcagaga	tcgtgccact	7260
gcactccagc	ctgggtggac	agagcaagac	tccgtctcaa	agaaacaaac	aaaaaatata	7320
aagggataga	atataatgaa	atataatttg	aacttaaat	atattctata	tgtgtattct	7380
cctaggcaaa	agctgtaatt	tccagagaga	ccattaggaa	caggtagtat	ctatttttct	7440
ccattattta	tttctagaaa	ctcataaaat	ggattgtatt	tttctataag	aacaaaaat	7500
taattaaggt	atagatgact	gaccaagggc	ttaatcaaat	aaaatgacta	acagcatcta	7560
tcataaagcc	acacaagcct	tatgttctca	tctcaaaaat	gctgtgacag	ctttttggct	7620
gctttaacca	taagaaaaat	gattgggtgga	tgattttatt	agcccaggct	tttaaaaaat	7680
ttcatctagg	ccacgtgcgg	tggctcatgc	ctgtaatccc	ggcactttgg	gggcctgag	7740
tggatggatc	acttgaggtc	aggagttcag	gaccagcctg	gccaaacatga	tgaaaccctg	7800
tctctactaa	atatacaaaa	attagttggg	tgttatgggtg	catgcctgta	atcccagcta	7860
ctcgggaggc	tgaggcagga	gaattgcttg	aactcgggag	gtggagattg	cagtaagccg	7920
agatcggtcc	actgcactcc	agcctgggtg	atagagcaag	actgtctcaa	aaaagaaaaa	7980
aaagaaaaaa	ttttaattta	atccttctgt	agaaacaggc	attcagaacc	attccattga	8040
tcttaataaa	gctgctcttt	actgtttcta	gtcaaaaatg	agacttcgat	caaaccataa	8100

gatttttatac tgcagatagt cagcttcacc aaagccgcag aggaaacatg tgcagatcag 8160
 gcttcctgct tgatagtctc ttgactacca ttaaaacgaa tattgggagg tcatgaaagt 8220
 cattggtagg ccattagcat tgatatcttt aaaacatcta ccctaaacca tctgctatgg 8280
 acccataata agaggcctgt tgtatatgaa attgtctaga attcagggtgc aggtctttgc 8340
 cggttaagta agggagcaac acgtaaaatg ggagaggagt ggggtgtact cacttgccctc 8400
 ctcttttgtc ctgattttaac cagcattttt caaccctggg aaaatttgca gaatctaagt 8460
 tgattgtaat gatttttgagc tgcagcagct ttaactctta ccctttttcc acatagttat 8520
 ggtgtttgag ttggaagaa acaactatag gttagctacac gtacataatt atctctttat 8580
 tcacaaaagg tatagtaaaa ttgattgtaa ataactttct aagtgccaat attcaaaact 8640
 tttggattaa aatgtatttt tcaccgtgca tttacttttg atgtatttat ttcattttaa 8700
 caattttaat ggggctcttt aacaaaaaat ggtattttaa accaaaacag tatcgtactt 8760
 agaatttggg gtagaggccg ggcacagtgg ctcacgcctg taatcccagc actttggaag 8820
 gctgaggcag gcgatcacc tgaggtcagg agttcgagac cagcctgggtc aacatgaaac 8880
 cccgtctcta ctaaaaatc aaaaattagc tgggcgtggg ggcgtgcgcc tataatccca 8940
 gctagtctac tcgggaggct gaggcaggag aatcgctgga actcaggagg cagagactgc 9000
 agtgagccga gatcgcgcca ctgcactcca gtctgggtga cggcatgact ccactctcaa 9060
 aaaaaaaaaa aaaagatttt ggagtagatt catcattaat aagtaacaga ttttaggaaa 9120
 atcaaaaaat ggctaataaa atgaacacaa tgtaaaacat ttattaaaat gtagactttt 9180
 aaaaatctat aaattgatca tctgtttata aattggcaga tggttgtgta ccactcttta 9240
 aaataaagat tgaatttcac ccagtgtgat ggttcccat gcttatattt ctctgtctga 9300
 ggccggacct gatatggccc tggctgtgtg tcccagcctt gtttcctcat taccactaaa 9360
 atctttcccc tgtatgcccg cccaattttt ctggctctga gtccctgttc atactgttct 9420
 ctccaattct accttccaaa ggcctttctt aacaccttcg gattctttct ttgagaactt 9480
 tccagattcc catgcctttt tggaaatcaat ctctatccta ttgtcatcac atttaagttt 9540
 ctacttccat catcctcact cctatccctt tggctcctggg atgacaggga tgctgtgttt 9600
 tatttactca tctttgtaac tccacataaa cctaaccctg gttcttgctt atgggagatg 9660
 ctgattgtag ggtctgagtt agatactggt aactaaaatg cttgttgata ttttagttat 9720
 taattcatat taactttggc tgaaactttt aaattctatt gtgaatagtc aagtaaaatt 9780
 tagattgtta cattctgggt tagtattaga ttgtttttaa gattgtttta aacaagatgt 9840
 ttttaagatg agttttaaat agttctctta acacaaaata agcttaatat gagtatttga 9900
 aggaaattat cccaaacctt tccagttcct ggctgtgaaa ggctttttcca ggcctaataa 9960
 gttttccact tcagcgttaa gtaggtgaaa tcaaactgaac aatagaggga attgtattta 10020
 tttgctttat acacatgcat gtgtgtgtgt tctacatata aacattgcac acgcttagaa 10080
 tgaagtttct gtcatgcccga gaaaaggag aggcattttt gtggattttg tctggctgcc 10140
 ctggggatgt ttgaagaact gtgctgttta cttcatacca ggtgtgtgag ccataacctt 10200
 ggtaggaggg tatacctcct acaccaaga aatataagcc aggagaaggt ctgtgccaa 10260
 agaaggaacc caaatgacct acaagagggt ggccattaat tattgggtca gatgcataaa 10320
 tgcacagtaa tttatttaag cacctcttaa ttggtgacca caaggaagat tgctcgtagt 10380
 agcggaaagg ttcacaataa ataagagaaa aaagcgaat gtagaactgt atgatacaa 10440
 ttctgcaaac aagaagcatc ttttataaaa gatggaagga gcccaggcac agtagctcat 10500
 gcctgtaatc ccagcacttt aagaggctga ggtggaggat cacttgagct gcagtgacct 10560
 atgattgtgc caccactcca gcctgggtga tagaagttag accttctctc aaaaaaaaaa 10620
 aaaaaaaaaa aaagacggaa attcctccag aatttttaaca tgtcaacaga ggttttctgc 10680
 agctactttt ttcagcttta tacttcgcag tattttccaa attttctcta acaagcagta 10740
 ttttccaaat tttttacaat aagcacacac acacacacac gtttgtttgc ataagtccc 10800
 aactggtggt gaacaaccgc tggcttttag tctatacata tctagaatat tttataaata 10860
 gtagttctta aacccttgaa agggagttaa tgaccagctg agaaaaataa gtcagtgaat 10920
 tcattatttt cctatattca catcatgatt ctaggaaaga acttgggagt gacttccttc 10980
 agcttcagcc actcctgggc caggcgcagt cttagctctg tggtaaagggt caccagcttc 11040
 ttctgcaggg tgcctgtatc atctgaattg gaggtttggc gagggtaaga gactgatgta 11100
 ggttcaagtt tttctttcct gtcctccact tgaaatctgt ctcccttcc agactgctg 11160
 cgctgctgac ttaaggcccc aacaccaaac acagaagcaa cagccttaca cagagtgttc 11220
 agcaagctcc aacaattgtg taaggtaaaag tttcctttat agattccttt tctatatcgc 11280
 tcctagtggg tctgtttctc tgatcgaatt ctggctgata acagttgctg agactctgaa 11340
 agagaaggga aggaactact gtttctcatt ataaactgtt tagaattatt tggccatctt 11400
 tttgctatga atattgtagt ctttgatata caaaaagtaa tgaaaagat 11460
 cacataggga aagatagatt ggattatttt taaagtttat atactaaatt gaaaagcaaa 11520
 gaataaaatg ggagaaacag ctccctcatg tggtgtttgg caggaaagct ccattcctct 11580

ctgtgggcct ccacaggttt gctcacagca aatgggtccgt gacagaaaga cgcaagggca 11640
 gttgcaccca agatggaagc caccatcttt tctataacct aatctgaaag aagggaacata 11700
 ccagcacttc tgccatatgc tgttgggtca cacagaccaa ctctggtaca gtgtgaacac 11760
 aggaccacac aagggcgtga attccaaggg cagagaccac tagggaccac ctccagaggca 11820
 cagagggaca ccctatccag ctggtggcca atgtaaatta acatagcttt ttagaatagc 11880
 aatatgtatc tataatctta aaagtattaa aagtacttct tgatccagta atttcatttc 11940
 taagaatcca tgctaagagg atttaaaatg tggacaaaaa aatgggtata aaaagaagtt 12000
 gttaacagta tttaaagtgt tgaaaaacca gaaacaatct aaagggtcaa caataggaaa 12060
 atgaattttg atatttttct aatagaatth tatgctgtca tcagaaatac catttacaaa 12120
 taatttttaa taacgcaaaa aaaagtthtat aaaatgttta gtgtaaaacc tggacacaac 12180
 tacataatga ttctgatttt gtaaaaaaaa aaaacaaaaa cacacacata tacacatgca 12240
 tacatatgca tataaagaaa actggaacaa acaaaataac aagcatagtt ggaattacag 12300
 tcatttttaat attctttatg cttttaaaaa ttttgaagtt tgtattacta gcatccacta 12360
 cttacgtagt caggaaaaaa atacaacttt aaaatagata tttagggtcca aagatggtaa 12420
 tctaatgggt gttacaggct gaatgtgtgc ctgatcccca tgccccaagt atcatgtta 12480
 aagccctggc ccccaaggca atggtattag gggagtaggg cctttgggag gtaatcagat 12540
 ttctacgagg tcatgagggt ggagcccgca tagtggaaat agtgtccttt taggaagagg 12600
 agaacagacc aaagccttcc tttctctcct cactatgtaa gaagacagcc agaaggtggc 12660
 cacagccagg aagagagctc tcaccagaac ccaaactctgc tagcaccttg ctcttgggtt 12720
 ctccagcatcc agaactgtga gaaatgaatg tgtgttgttt aaaccactca ggctacggta 12780
 ttttgttgca gcaagcccaag ctgacagaga tagaaacaac acaaggaccc atcagacagc 12840
 gaattggatga tcaaaacgtg gtgaggtcgt gcagtgggat attattcagc cgtagaagga 12900
 atgaaattct gatacatgct ataattgatga acctgaaaa catgttaatg gaaataagcc 12960
 aaacttaaaa ggacaaatat tgtataattc cacttatatg agttagttac ctagaatagg 13020
 caaattatgt catagataca gaacattaga ggttaccagg gttgtgggaa gaggggtatt 13080
 gtgggtacaa attttcgggt tggagtgtat ttgaaaaaat tctggaaatg ggtagtga 13140
 gtagtcaaca tgatgaatgt acttaattgac actaaattgt acacttaaaa atggttaata 13200
 ctgggctggc gcagtggctc atggctgtaa atcccagaac tttgggaggg caagacaggg 13260
 ggatcatgag gtcaggagat tgagaccatt ctggctaaca tgggtgaaacc ctgtctctac 13320
 taaaaaataa aaacaaataa aaaaaaaatt agccgggcat ggtggcaggc acctgtagtc 13380
 ccagctactc gggaggctga ggcaggagaa tgggtgtgacc tgggagtcgg agcttgagc 13440
 gagctgagat cgcgccactg cactccagcc tgggcaacag agccagattc cgtctcaaaa 13500
 aaaaaaaaaa aaaggttgat acctgggtgc gctgttaatt tcagcacttt 13560
 gggaggccaa ggcaggcaga tcagttaggg tcaagagtta aggaccagcc tggccaacgt 13620
 ggcgaaaccc catctctatt aaaaatacaa aaattagtcg agtgtggtgg tgggtgcctg 13680
 tagtcccagc tgctgggagg atgaggccta ggaattgctt gaaccagga ggcagaggtt 13740
 gcagtgaatt gagattgcgc cactgcactc cagcctgggg gacagagcga gacttagtct 13800
 caaaaaaaag gttaaaattg taagtthtgt tatgcatatt ttaccataat cttaaaaaa 13860
 tagatatata ggagataaag tcaacagaat ttaataacca gttgtaaata gacttagt 13920
 gaggaggatg aattaaggaa gacattgagt acaacttttt ggtaggtgaa aaactcttaa 13980
 aaaaaatacgt gggcaaagat cctacttgat tcttataatt taaaaatctc ccagttagta 14040
 aacaaggcta ggtggagatt tgcatgtgat gtgaggtgtg tgttctgttt tgtaatgtga 14100
 ggactgtgag ccatctcctg gacttgaata tccattagat aattgaaaat acggatttga 14160
 gaactcagga gacgtgcaat gcagtaacaa aactctgcac ctagtgtatt tctgtctcct 14220
 aatttaatgc ttttatggga caaactgtta ggcagggtgg caagatggac agccatattt 14280
 ttgtgggttt ctggcctgtg ggccagcctc agtgctcact ctgaggtcat gtccaaactt 14340
 agaacacatt caggcctacc acagtcaagg ctccctttct caactctagt cctctgcaca 14400
 aatatccgaa gcctagaaat aataatcatc tgtccttgtg tcttgacatta tgaaagccta 14460
 ggaaagggcc ttgggaatta agaagaatgg aaaaactggt ctaactgctg catgcttcag 14520
 cttgcagggg aatcactgaa atggggacag gccataaaa gacaaccaga agagtggctt 14580
 cagcaaaaggc atcgthtttc agagcaagct agagaatcct gccagcgtcc tcaggcaggg 14640
 cccctgggca cagagggttag gcaagggagt gtcccagcat gttgatgccc tgagcatcag 14700
 aataatgcca tagaggagct tccaaagagt tcatthcagg ttttgaagc cgaacatttc 14760
 taggcaataa aaatttgatt ttgtgaataa agcttgthtc ttcaactcca gtgcagattc 14820
 tcatagattg atagtggctt gtgatccaga taaagaaaac aatttttcaa agattcatat 14880
 tctttgtaga tgtacggatt tagagaccat ccaatctaac tccctcattc tacagatagg 14940
 aaaaatgagg cctaaagaag ttaagaaaat ctaactgaaa tgtcactgct gaactgccat 15000
 acgtaggatc cgaaagaat tgggtaaatg ctactgtgag aaatacagta ctagggtcaa 15060

54.

```

agaatctaata acaaatataaa aatctaaatg ttattttctaa agcatccctg cacatggctg 15120
aacttacataa gtttcattttt ctttctttttc tgttgaagaa gaggaatttg gctgggtgca 15180
gtggctcatg cctgtaatcc tggcactttg agaggccgag gcgggtggat cacctgaggt 15240
caggagtttg agaccagcct ggccaacatg gtgaaacccc atctctacta aaaatacaaaa 15300
aattagctgg ctgtggtggc cgctgcctgt aatcccagct actccagagg ctgaggcagg 15360
agaattactt gaatctggga ggtggagggt gcagtgaacc aagatcacgc cattgcactc 15420
tagcctggat gacaagaggg aaactccatc tcaaaaaaaa aaagaaaaaa agcaatcact 15480
aacctgtgtt gtttattaaa catgacagac tggcatgaag taattaccaa actgtaaaaca 15540
aaaaagctac aatctgccag gcatggtggc tcatgcctgt aatccccac cttgggaggc 15600
caggttgggg gatcacctga ggcttgagt tcaagactag cctggtcaac atggtgaaac 15660
ctcgtctcta ctaaaaatac aaaaattagc ccggcgtggt ggcacatccc tghtaatccca 15720
gttactcagg aggtcaggc aggagaatca cttgaacctg ggcagtgggg aggttgcagt 15780
gagccaagat cgcaccgttg tactccagtc tgggccgaca gagtgaact cggtctcaaa 15840
aaaaagaaaa aagaaaaagct acaaccttaa tctcaacttc tcataacatc atctctactt 15900
ctgattagaa gagtgaagt ggggagggtt attacaaaaa gactgttata ccttacacac 15960
ttctcccat gaatagtga ggtgtgagt aaaaagacag caattttatt tttttttga 16020
aacaggttct tgcactgtca cccgggctgg agtgactgt tgtgatcact gctcactgca 16080
gcctccacct cccaggctca agtgatcctc ctacctcagc ctctgagta gctgggacca 16140
cagttgtgca ctaccatgcc cagctatttt tttttaagag atggggtctc actatattgc 16200
ttaggctagt tctcaaaactc ctggcctcaa gcagtcctcc gaccttggcc tcccaaaggg 16260
ttgtgattac aggcataagc caccacaccc agccagcagt tttagaataa aggggtgaagg 16320
tgctgttggg gaaatataat ttaaaaaaca aaatcttctc tcaaccaga aatcctctcc 16380
atgaaggcag tagagaaaga taagctttat tattgaataa aaattaaatg agaattgtat 16440
gcacatcaca ggcactttgc taagagatca caaagacaga aggaaattc accattttgt 16500
acagccaagc aggtacagcc cattacatgt atgttttoga gataaatagt cctcaactaa 16560
gagaacttga cagcaccact ggtcacacag ttcattctaa ctttacctga taattgtatg 16620
gaccacttgt gttatctaag atatcaactt ttcgggggtg ggggagtggt gaaacaggag 16680
ttacttttat agcttgggtc aaggtactca ttaagattag gctgttacct tcccacagaa 16740
actggaagat aggtatgcta tctggtaatg tttacatttc ccagatcctt gagaaagaca 16800
ttcctaggtc ataaagctga caaaaggctg attcagtttt taaatatata tatctgtata 16860
tgtatttca

```

<210> 65

<211> 15000

<212> ADN

<213> Homo sapiens

<400> 65

```

gatctcttga tcccaggagg tcaaggctgc aatgagctaa gatcaagcca ctgcattcca 60
gcctgagtga tagtgggaga ccttgtcttt aaaacacaca cacacacaca cacacacag 120
agggcctttg accactcttg agtagaagac tcgagaagaa caaagtagaa ggccagagaa 180
gaacaaaagt acttgaaaaga tctcttatta aagagaatgt acaagctatg aaaaaaaaaa 240
aacacacaca cacacacaaa cctcatctgg aatgaaaaaa acataatgca tttggtttct 300
ggttccttag gctgttatgg aacaaccaa gaacattatt ttggtttctg aggtcagaac 360
tattttattc cctcaagca cactatgctt atgggttgag ggagaatgag aaataggaaa 420
ctaggaacag gctgaaatgg tctaactctg accatctaatt tctgcagtgt cttattctca 480
ttctaaaaga gaatggttat attcgctgtt ctagcataaa aagtaatgat aaaaaataaa 540
gatcccgat taccagacaa taatcccta gactgtttta atgcttgggt gagtatttgc 600
ttatgatctc agactttaaa agatgggtctc cccctatggt gaagcttgtt aattatgtag 660
gcatcattaa tgtctgttta cttatcaaaa ttttatcatt gttagtgtga ttactacttg 720
acagtccaat ttatttaatt gaaaagattg gtttaacatt tatagtcaaa gtaattgttt 780
cctgtgtttt ttcctgttta gggtattgga gtgatgagta aagaatacat accaaagggc 840
acacgttttg gacccctaag aggtgaaatc tacaccaatg acacagttcc taagaacgcc 900
aacaggaaat atttttgag ggtaagtga ggaatttct tcagacccat taaatgttag 960
gaaaaaatgg agctaaaaga gctgggtggc tcaactttct catcctgtgc tgagaaatgc 1020
tggggctcac ccataagtat ccagcatccc catggacaca ggggaattctg aacaaatgtg 1080
atgaaaccga tgaaatgtct ggctgttagg tggttagtga tggagatacg ggctatatgt 1140

```

09719554.011801

gaatcttgat ttttgcaatt cattagagct ttgtaatgaa aggaaacagt ttgttgcttg 1200
 ctttaaggat aggttcattt gcattttctcc gcaaggaaagt agtaatgagt taccaagcct 1260
 tagatttcac ccccttttga tttcttgctg acttaacatt aattgaatgg aagagttatc 1320
 acaaatgaat tatctttttg gttttttttt ttttgagatg gagtctcact ctgtcaccag 1380
 gctggagtg aatggcatga tctcggtcca ctgcaacctc cgcctcccag gttcaagcaa 1440
 ttgtcctgcc tcagcctccc gagtagctgg gactaagggtg cgcgccacca tgcccagtta 1500
 atttttgtat ttttagtaga gacgggggtc cactatgttg gccatgatgg tctcgatctc 1560
 tggacctcgt gatccgcca ccttggcctc ccaaagtgtc ggaattacag gcaagagcca 1620
 ccgccccag ccaggaatga caaatgaatt acctataag taaatgccat taaggaaagga 1680
 tagctggaag atgggttgag gggaatggag gaccacagaa ctagtcttat ttaaatacat 1740
 gtgcatggta aaatgattcc atttgacaat aggttaatta tctcatagca taaggaaaat 1800
 gcttaacagt catatgcaag atgataagct ttcctatagc atccaacca aagatctagc 1860
 cagtacaatt tcttttgcta tattagggtt agaaaggccc ccagaggtga accaattaga 1920
 tggaatcctt gaataaaaca ctggattagc agtgaacaga aaaaagtcag attgctttcc 1980
 ttcttcccat agatgtctca gggatattta gtttctcag aagataaaga atttagtaag 2040
 cgtttttttg tgcatactta catgaaatgt acattatttg aattctttea aaagaaacag 2100
 ctgcatgata acaaaaattg tgttatgctt gcttttagctg gtatttttgc ctagaacgat 2160
 tatatcgttc ggacaagaag ctatttctaa gaaacaatat ttttaatcca ggaagttttt 2220
 catttttaga aatttatctt actatttccc aagcaaaaga gggtagttac agattcacta 2280
 agaattcatgt gctcacaaat tttatttaatt aattattcct ccttaaaata tattaatcac 2340
 ctgacttaca atgggtggaac catgagtgc aatttttctt tattgtcaat aacgtcttct 2400
 cagaagtga ccacaaagg gcatagttct tggagttaaa ggtctgaatt aagacaatcc 2460
 agcataagtc tcattaatgt gtgattattt tgagaaaagg caagaagtac ctaagaatct 2520
 cccctcact gtccagttcc ctgtttcatt taaagattca ctgtaagtaa ctgaaaggct 2580
 ttctttggga ggatttattt gaatcagctt ttcacatgca aaggatattg tagaacatct 2640
 cgtttttgct ggcaggaata tgaacatctg ttgtgaggaa agaaaaagt tcatgcaaat 2700
 tacactgcca aagaagggat gttcaagttg agaaaccagt gacatttctt gtaactgtac 2760
 tatgaatcag cgcattttta tcttctagat aatatatgga agtgcaggaa ggtggttagga 2820
 aacggtgttc attttacata tgcgttattt tattctgtgt gagtgacttc atggcaccga 2880
 cattgctgtt tttaaatgag gatacagtaa attgcagtc gaggaaggct aactggaatc 2940
 aacatacccg tagctttaga aagcagtttc cgcaccagcg aagagtacaa ggcgtagga 3000
 accctatgtt cctggaagt tgcacatcag agtaaaacaa cctcttgata cctcttgata 3060
 gcagaattca cccagccttg ttcatttttc tcttaacaaa acacaccgca aaagctctca 3120
 caagctgctt tgatgaagcc acatgtattt ccccttcac aatttacagg aagttactct 3180
 taaaagaaaag tgattctggt gtttaccgcc tgtgttaaa ggcacagagt cctttttatt 3240
 tctgataacg tttgagcgaa atacagaaac tatctgtaga ctagcatagt cggtagctga 3300
 gtaaggaaa gcaataacct gctgtccggg gaggacaaaa ttctgtctac gaacagtgc 3360
 ttactgctgc ttggagactg caagctcag atcacactag gtattgactg attgtataag 3420
 gaaatttctt aaagtctaaa gtaaaagggtg tacctcttaa aaagagggga agagagaaaa 3480
 ctttgtgtgg aaggataagg agtgtgttta tagtttcagt aagagtgtac gttttaattt 3540
 ttcttcttcc tctgcctctt tgccaagtag cctgagtgca tctgttatcc agaagtagta 3600
 ttactctagg acaaacttca aattcttcat tctgcgttgc ctttaaggaa caacatactt 3660
 tcttctgtt ctttttccaa aaacacacgc ctatggctct gtgtgtggtg ttttagccag 3720
 cctcctccca gataagggt tcccttccct cctttgcatt gaaaaggaaag tgcaagtctg 3780
 gacatgttta tcaagaggaa aagtgaactt tcagtaatag actgtcaaat tcgggctgct 3840
 gcccgagtgt tcgctttgtt atggcagggt aagttcacct ttgccccacc cagtgtttcc 3900
 acaaaaaggc aaggttccaa gtattcatat gaacaagtgt tactttagga cttggagggt 3960
 tgggggtgga ggatgtttgc atagtgaag ccttgggcgg ggggttagga aacggcgagt 4020
 ccagagcca tagaaaagc taagactcag tttgacgtcg ttagccggct tgggtcttca 4080
 cccagtgaact caaagcacta aaagtcagca taatcggaac tgaagtcagt agcatcgccc 4140
 atttgccatt cactgcagta gcaaaagtag tactctgtgg tgggttaatc ggtttgaggc 4200
 agctccttaa atgaacattt gtgtttcatt tttctgttat tttccgaac atgaaaagac 4260
 gataaaactg aaatggaaaa ggtaactgac aaaagtgtgc cttacctgtt tccgccctga 4320
 tttctgctga ttcaagacta ttctggctaa actgattgga ttctttttct aactaggcag 4380
 taggggctca gaaatcacac acggtaccgg ctgtgtttat tctgagagg gctggggagc 4440
 tttgggtctg acttctcttt acatgcctgt cttctctttt ggacagatct attccagag 4500
 ggagcttcac cacttcattg acggctttaa tgaagagaaa agcaactgga tgcgctatgt 4560
 gaatccagca cactctcccc gggagcaaaa cctggctgcg tgtcagaacg ggatgaacat 4620

ctactttctac accattaagc ccattccctgc caaccaggaa cttcttgtgt ggtattgtcg 4680
 ggactttgca gaaaggcttc actaccctta tcccggagag ctgacaatga tgaatctcag 4740
 taagtggatt acagaacaaa aaaataaaaa atgccagtaa tgtcggttct gccctttga 4800
 actaataaca tgttgtttta ttatacggct ttgtcatgtg ttggatgaag taggtggctt 4860
 aagctaggga ctaggaagag gaaaaacatt ttttgagtcc ctattaacta ttaggaaact 4920
 tgatcattta aaagtatata tatatatgag gagctacctt gagttttgaa ttcaggatgt 4980
 tacaggaaga aatatatgtc caatttctaatt tatccaaaaa gcagttggga gaattacagg 5040
 gatttggcca gacatgtctg gtatgcaagg tatagccctc atctgtggta ctttggcagg 5100
 gcttagactg catcaaaata tttatagatg tacatttgag tgtacagtta ggatctgatg 5160
 tggaaacattg taagatcatt gctagaaaaa ctttgtcata atttttcaat attattctaa 5220
 gtgaataacc gtaaagattt tacatcttag ctcccttccct tacagtaaaa aaactatctg 5280
 atctcttgat cagtattata gttagccacct atcactttat ctttaacaaat tctcaattcc 5340
 ttaggtttat gtgcttttac ttcttttatt tgattaaaaa tgctgtcatg acctctctct 5400
 gcagagggct gcacattttt ggctattctc aagtgatctc tttgagcaat ttaagaattg 5460
 ccataagatt ctaacctctg ctgtaactat ggttgtgtgt tcttggttag accactaaat 5520
 cttattagca gttttaaaaa ttattccctt tggtttagaa gtttaagacta aatgctgaag 5580
 tttttgtaac ttttggtttt gatatcattt caaacttaag aaaacatttg aagaaaaggga 5640
 caaagaattt ccacttaccc tttaccaggg tttaccagtt attgataagt atatccattt 5700
 gctttaccag aaggctaact tgttttagtt ctcattttca cctttgagac atttggata 5760
 aatatcaatg ttaacataaaa ttggaatttt gactttgatt ttaggaccaa tgaacaagcc 5820
 aagtaattac cctagtcata tataatccaa ctgtatgggt atttgggtatt cattccacac 5880
 ttcattttac ttgatctccc ttaagattgc aagatttgtt ttgcagtttt tctgaaaaatc 5940
 tggggctata aaagcatcag gacctccccc gttaggggagg tctgtgtgtt ggggtccctta 6000
 cacaacaggt tacccttgag cttcaggaaa agaactggct ctcagttccc cagttccagc 6060
 ttaattgggtc taattaggtc ctgacccaaa aggtggcagt tcttttccct catgtctctt 6120
 cagcgctccc cgagactctg gagactctgt catatcccta gggctgagcc tcccaggaaac 6180
 cattcggctg ttgtggcatc tgtgtatgcc atgccagtg ctgaggacct agtaacaaac 6240
 gacaaatgca caggcacagt ggcatttttg ttgaaactcg attccagctg tgcgtctcag 6300
 aagaagcgca cagctccctc ctggctttct taacatagtg agccacttcc acttaagggt 6360
 ctccctacat tccrtgagtt taatcattca tggattcaga ggaaagtctt ttgatttttg 6420
 cttttcttta aacagttcat ttgaggtgac gactttgcac caaccaccaa 6480
 gaaaactttt tgcagtcttc ccgcacctg tgccaatcaa gggaagggtt taaaggcctg 6540
 gcgtttttat tccctcaaaga aaggttttgc acagtatttt aaggttcaag tgcctctact 6600
 ttgtgttcag aagcaactgt catatatact gtgaaatgac accttttatt tatccctttt 6660
 tatttatgca gtatgtcccc ttttattttg gcagaatttt ttctaaatgg ttggtttaaca 6720
 ttttcaagca catttcattg tccaatattc atagtaaaga atgagagtta acaataacca 6780
 gtcacattaa aacaagattc ctgctgccag ttgtgaaacc ggttgcctta aagctggcag 6840
 ctgagattg agactgtgat caggaaaaat tccactattt catcaggcct aataggtaga 6900
 ttgtgtctcc aaatgaactg tgttgggttt ccatgcttaa agcacaatag aggtggtgca 6960
 agaatctcca tgagggttta aatggcagtg atggttcagg cggtagagtt tggagaagaa 7020
 gggatttgaa acaaaccaaa ggaaagaaaa gtaagtagcc agaaatcaca aaatggcatt 7080
 tttctaaaaa caaaggaaaa ggaataaaaag aactaataag tttgaaacct ctacccttcc 7140
 caaatttggc agggggggag gtattttttt tctatctatc taactaacc atctagaaaa 7200
 cagttgacca aattatagac ttctaaatgt taatctgctt tctcagtttc agttgaaaag 7260
 agactttggt ttgcctactg cagaacttct aggttctttc ttatagtctt ggggttctta 7320
 ttatagatcg aaaatgtgag tccgcataat taagccattc ggagtcttca gaagcagttc 7380
 actcttgaaa tgactccgtc cgcctacagc catttaagat ttcagaacaa aaacagatct 7440
 tgattttctt tttcatgtta actcaagctg ttgctgagtg ggagagtcag aaatgacacc 7500
 agctccactg attactcagc tgctgaagga tgatttttta aaatgcacct ttactgtata 7560
 tggacttccct aatttccacc tgtagagcat cttagggagg ctaacatgtc actctggatg 7620
 ttctttttaga ataagatgca aatctatttt tctgaaggca ttagagatag caaacattta 7680
 ttgtgagttt actatatact aggcactgtg ctaagtgttt tgcatagaaa gtttaaaatt 7740
 ctggcttttt tgttggccca atcataagtt tcatatcagt tcaacattca aattatatta 7800
 aggtacttaa gaagaatccc tggctaaatg tgaggggcag tgccacagat ggactgaaac 7860
 tttatgctta ttgcacattt atgctattat tatttttga attatagaac caagggagtg 7920
 tggaaagcac tggaaaaaat atgagactta gatacataat ttgagtaaaa atgggtcaaa 7980
 gtcattgagg taaagttttt tgtatttcca ttttattcga gcggcatcgt ttttaaaaat 8040
 cattatgaat ttgacctat atagatgttt ccaataaatt ctttttcacc ttcataaaat 8100

tccttcctgt	ggctgtgaga	tgccttgccct	atcagttttc	aagcttagtt	gtctttctca	8160
tcctttacca	tttttagcttt	aaaaaacaaa	agtgacaatt	agaacttcct	gcctgtctggg	8220
cctcactgaa	agaccgatatt	tggcctgata	aggagatatt	tattttgttt	tagtggcttc	8280
agaaatccct	ctccctcagc	aagctttcca	tcacggcccc	cccgtcagca	tcctccctga	8340
tagcgttctt	ctctgtgttt	attctggggc	ttcaggctcg	cccaggagga	actgataacc	8400
gctggcagga	gataacattc	tctaaggggc	tctcaaattg	gaatcgaatc	cctcaagcca	8460
gtcagcctag	agaatacatt	taaaggggtt	agttctggag	tttcacagag	ttcatttcta	8520
gacctatcag	atagcaagtg	tggagttctt	tctcaactaa	attcaagcag	agacattttt	8580
tagacgatga	aggatatttg	cacaaaaggct	tcagcatgat	ccccaaaacc	tgctgcctct	8640
gaaggcatct	ccacacattg	acagccaatg	ccttcagtgc	gttcctaggg	cagggtgtcct	8700
ggcttgagtg	actgtcctcc	aataatcaga	gctcaaaacta	aacatcgtat	gttttacttt	8760
tgggttccag	gcaaggctga	gcagggaatt	ttcagttttc	cctgcccaga	tgggtgtttt	8820
ttcctgaagg	catcatttat	tgtgtagcga	ggagacaggg	ctggctgtgg	cagggatagt	8880
ctagaactgt	cctcattgct	gctgttccta	aatagtatct	ttaccaagta	ataacgtgcc	8940
gtctttggga	ataagtgttt	tcctcttagc	ctgttctgtt	ttcttgggtg	cgctaagtaa	9000
ttgaactggc	tcaggaagta	cctattgtgg	tttggcagag	gtgactgtca	cgcttgtgta	9060
ctccaggggc	cagcactgct	gggatcctgg	ctagaccaga	cagagccttg	gtgaagtgc	9120
taggctgtct	gcacatcgcg	aggaagggtg	tattcacttc	gctaagctcc	ttggcatagg	9180
cagtttgaac	agggctttat	caaattcgtat	ttcaacaaga	gtagaagcga	aaattgatga	9240
ctgtgtatta	cttgaatga	gtcttaattc	ttcacattta	gttctcaggg	tatgtcgtat	9300
tcctttagggt	aaaccatgaa	catcagaaag	acttttatta	acctatgaca	gggtccccac	9360
cccagtatatt	ttccactcca	ttaaaatgga	agtttttttt	ttttttttct	tttttgagac	9420
agagttttgc	tcttgttgcc	cagtctggag	tgcaatggca	caatctcggc	tcaccacaac	9480
ctccacctcc	cagattcaag	cgattcttct	gcctcagcct	cccaagtagc	tgggattaca	9540
ggtgtgcgcc	accacgccca	gctaattttg	tatttttagt	agagatgggg	tttctccatg	9600
ttggtcaggc	tgggtctgaa	cttcgcacct	cagggtatcc	gcccacctcg	gcctcccaaa	9660
gtcgtgggat	tacaggcaag	agccactgca	tccagcttag	gctatcttac	tccagcctaa	9720
acagcaattt	tctatcataa	ggtctgtact	aatgaaaaca	gaatcaccca	aggctgctgt	9780
ttgttctgtc	tgtgctgcc	ttgtccgcct	tttgcgtagg	aggaaacgga	actgcacttt	9840
tgagtgaagt	gcccagagcc	ttctagaatg	agagtgcgtt	ggaagccaga	tatgtggcga	9900
ttgtgtcgcc	agctgttact	cagggttttct	caagaaggag	gagcaacttt	ggcagttttg	9960
cttcagttct	ctctagccct	ctgtgtaate	gccccttttt	ctttattttca	gcacaaacac	10020
agagcagtct	aaagcaaccg	agcactgaga	aaaatgaact	ctgccc aaag	aatgtcccaa	10080
agagagagta	cagcgtgaaa	gaaatcctaa	aattggactc	caacccctcc	aaaggaaaagg	10140
acctctaccg	ttctaacatt	tcacccctca	catcagaaaa	ggacctcgat	gacttttagaa	10200
gacgtgggag	ccccgaaatg	cccttctacc	ctcgggtcgt	ttaccccatc	cgggcccttc	10260
tgccagaaga	ctttttgaaa	gcttcccttg	cctacgggat	cgagagaccc	acgtacatca	10320
ctcgtctccc	cattccatcc	tccaccactc	caagcccttc	tgcaagaagc	agcccagacc	10380
aaagcctcaa	gagctccagc	cctcacagca	gccctgggaa	tacggtgtcc	cctgtggggc	10440
ccggctctca	agagcaccgg	gactcctacg	cttacttgaa	cgcgctcctac	ggcacgggaag	10500
gtttgggctc	ctaccctggc	tacgcacccc	tgccccacct	cccgccagct	ttcatccctt	10560
cgtacaacgc	tactaccccc	aagttcctct	tgccccctta	cggcatgaat	tgtaatggcc	10620
tgagcgctgt	gagcagcatg	aatggcatca	acaacttttg	cctcttcccg	aggctgtgcc	10680
ctgtctacag	caatctcctc	ggtgggggca	gcttgcccca	ccccatgctc	aacccacttt	10740
ctctcccag	ctcgtgccc	tcagatggag	cccgagggtt	gctccagccg	gagcatccca	10800
gggaggtgct	tgtcccgccg	ccccacagtg	ccttctcctt	taccggggcc	gccgccagca	10860
tgaaggacaa	ggcctgtagc	cccacaagcg	ggtctccccc	ggcggaaca	gccgccacgg	10920
cagaacatgt	ggtgcagccc	aaagctacct	cagcagcgat	ggcagccccc	agcagcgacg	10980
aagccatgaa	tctcattaaa	aacaaaagaa	acatgaccgg	ctacaagacc	cttccctacc	11040
cgctgaagaa	gcagaacggc	aagatcaagt	acgaatgcaa	cgtttgccgc	aagactttcg	11100
gccagctctc	caatctgaag	gtaggccttg	agagagagca	gtccaagggg	ctgtgagtgc	11160
atgcttgtgt	ttgtatttag	cttgctttcc	atgggggtatc	gattgcattt	gcagtagtat	11220
gagcccccg	ttggggatag	tgggtatgga	ttccgcctgg	cttttgccac	ttctagctct	11280
ttgactttgg	acaagtgact	tcccttctcc	tgattttctt	ctgaataata	aaaaaattag	11340
gggtttggac	tagaagatta	ggtgaaactc	cctgctagcc	tgtgattttt	gtgcttttaa	11400
gaaaaacacc	attctgaaaa	catgaagatt	tcttcttttt	aagactgtct	tgatgctttt	11460
cttaagatat	ttgcatcaac	acttgagtct	tggagcagaa	atgttaggtc	tcagagccag	11520
cttgagagca	gagctaacac	atgtggcttc	ttcccaggtc	cacctgagag	tgcacagtgg	11580

agaacggcct ttcaaagtgc agacttgcaa caagggcctt actcagctcg cccacctgca 11640
 gaaacactac ctggtacaca cgggagaaaa gccacatgaa tgccaggtgc gcagttattt 11700
 ctgggtagac cttctgacct ttgtagaaaa tgtctgtgag tcacctccc atgtcttata 11760
 tagcccgtag ttaaagccaa caccagattc tggcgtgtcc catcctggac tgatggcaat 11820
 atggtccttc ccagtacttt gtatctgtct atgacttgag atggcacagc cagcttccag 11880
 tgggtgggaa aatggtaggg gaaataaaca gcccctcgtg tgcgtgtgtc ccacatcccc 11940
 ccgtttgctt aataccacac tggaggtgac acaaggaggc ttctcacctc ctaggttgtc 12000
 gggcggtggc cggtaagcct gcccctcccg ttggcaactc ttaatcttct ggccttccgt 12060
 tctcccttcc ctgctgtctc tctccctac actgtaggto tgccacaaga gatttagcag 12120
 caccagcaat ctcaagacct acctgcgact ccattctgga gagaaaccat accaatgcaa 12180
 ggtgtgccct gccaaagtta cccagtttgt gcacctgaaa ctgcacaagc gtctgcacac 12240
 ccgggagcgg cccacaaggt gctcccagtg ccacaagaac tacatccatc tctgtagcct 12300
 caaggttccac ctgaaaggga actgcgctgc ggccccggcg cctgggctgc ccttggaaag 12360
 tctgaccoga atcaatgaag aaatcgagaa tttgacatc agtgacaatg ctgaccggct 12420
 cgaggacgtg gaggatgaca tcagtgtgat ctctgtagtg gagaaggaaa ttctggccgt 12480
 ggtcagaaaa gagaaagaag aaactggcct gaaagtgtct ttgcaaagaa acatggggaa 12540
 tggactcctc tctcaggggt gcagccttta tgagtcatca gatctacccc tcatgaagt 12600
 gctccccagc aaccactac ctctggtacc tgtaaaggto aaacaagaaa cagttgaacc 12660
 aatggatcct taagattttc agaaaacact tattttgttt cttaagttat gacttggta 12720
 gtcaggggtg ctgtaggaa ggccttgtac ataatcccag ctctgcaaat ctctctcgac 12780
 agcaaatggt tccccctcac ctctggaatt aaagaaggaa ctccaaagt 12840
 cagggcctga acaaggcaaa ggccatatat atatatatat atatatctgt atacatatta 12900
 tatatactta ttacacctg tgtctatata tttgcccctg tgtattttga atatttgtgt 12960
 ggacatgttt gcatagcctt cccattacta agactattac ctagtcatata ttattttttc 13020
 aatgataatc cttcataaatt tattatacaa ttatcattc agaaagcaat aattaaaaaa 13080
 gtttacaatg actggaagga ttccctgtaa tttgagtata aatgtatttt tgtcttggg 13140
 ccattctttg tagataaatt ctgcacatct gtataagtac ctaagattta gttaaacaaa 13200
 tatatgactt cagtcaacct ctctctctaa taatggtttg aaaatgaggt ttgggtaatt 13260
 gccaatgttg gacagttgat gtgttcattc ctgggacctt atcatttgaa cagcattgta 13320
 cataacttgg gggatgtgt gcaggattac ccaagaataa cttaagtaga agaaacaaga 13380
 aagggaatct tgtatatatt tgttgatagt tcatgttttt cccccagcca caattttacc 13440
 ggaagggtga caggaaggct ttaccaacct gtctctccct ccaaaagagc agaatccctc 13500
 caccgacctg cctcccccac cgagtcctgt ggccattcag agcggccaca tgacttttgc 13560
 atccattgta ttatcagaaa atgtgaagaa gaaaaaaatg ccattgttta aaaccactgc 13620
 gaaaatttcc ccaaagcata ggtggctttg tgtgtgtgct atttgggggc ttgagctgg 13680
 gtggtgtttt gttgttgggt tttgttgcct tttttttttt ttttttttta atgtcaaaat 13740
 tgcacaaaac tgggtgctca ccaggaagga ttcgaggtag ataggctcag gccacacttt 13800
 aaaaacaaac acacaaacaa caaaaaacgg gtattctagt catcttgggg caaagcggg 13860
 taatgaacat tcttatcccc aacacatcaa ttgtattttt tctgtaaaaa tcagattttc 13920
 ctcagttatt gtgtttttac attttatggt taatttaatg gaagatgaaa gggcattgca 13980
 aagttgttca acaacagtta cctcattgag tgtgtccagt agtgcaggaa atgatgtctt 14040
 atctaattgat ttgcttctct agaggagaaa ccgagtaaat gtgctccagc aagatagact 14100
 ttgtgttatt ctatctttta ttctgctaag cccaaagatt acatgttgggt gttcaaagt 14160
 tagcaaaaaa tgatgtatat ttataaatct atttatacca ctatatcata tgtatatata 14220
 ttataacca cttaaattgt gagccaagcc atgtaaaaga tctacttttt ctaagggcaa 14280
 aaaaaaaaaa aaaaaaaaaa gaacactcct ttctgagact ttgcttaata cttggtgacc 14340
 tcacaatcac gtcggtatga ttgggcaccc ttgcctactg taagagaccc taaaaccttg 14400
 gtgcagtggt ggggaccaca aaacaaccag ggaggaagag atacatcatt ttttagtatt 14460
 aaggaccatc taagacagct ctattttttt ttggccactt tatgattatg tggtcacacc 14520
 caagtcacag aaataaaaaa ctgactttac cgtgcgaatt tttctgtttt cctccctact 14580
 aaatactgat acattactcc aatctatttt ataattatat ttgacatttt gttcacatca 14640
 actaatgttc acctgtagaa gagaacaaat ttgaataat ccagggaac ccaagagcct 14700
 tactggtctt ctgtaacttc caagactgac agctttttat gtatcagtggt ttgataaaca 14760
 cagtccttaa ctgaaggtaa accaaagcat caggttgaca ttagacaaa tacttttgat 14820
 tcccaactac tgcgttgttc tttttctctt tttgtgcttt cccatagtga gaattttat 14880
 aaagacttct tgcctctctc accatccatc ctctctcttt ctgectctta catgtgaatg 14940
 ttgagcccac aatcaacagt ggtttttatt tttcctctac tcaaagtraa aactgaccaa 15000

<210> 66
 <211> 46340
 <212> ADN
 <213> Homo sapiens

<400> 66
 tatttttactt cagtaacaga aaatgaaaga aatgttttaa tgttgctgat tgtattacct 60
 tcaggatcaa tagcagaagg acaaaacttct ttgaggagat ctccatagtg gtgcaactgt 120
 ccatctgcag ccacaggacg aaacagcttc tgaatgaaag gtctttcagt cgttgtctat 180
 ttgaaaaagg aaaaaatgat tcaagcaatt aagtccttgt tgctgccaat tacaaattta 240
 tatatcataa actttatgtt ggcattaggt gccttttgat acgggtgttag cataattaca 300
 caacatcaca gatgtggtat cactgtgaaa aatgtttaac atgataaatt caggtaaactc 360
 taattctgag gaaacagaca aatccaaagt tgggtgggac attctaaaga taattggctg 420
 ggacccttca aaaacttaaa gacattaaaa agcaaaacac acaaaaagat atcaacaaaa 480
 gcattttttc tcagtatctc ttaaagagac taacaaagca aatacaaaac ataaaccatg 540
 gctgaatact aaattgaaga aggacatttt ttagaaatcc aactatgaaa cacagttttg 600
 ggataaatgg ggaaatacag aatggacaac tgataatatt attgagttaa tgtcaaattt 660
 cttaggtaca ataaggacaa tctttatttt taagaaattc attgttcaag tgtttaggaa 720
 agaagtgccca tgatatccaa aacttaactc tctttctctt tttttggaga cagagtctcg 780
 ctctgccacc ccggctggag tgcagtggcg cgatctcagc tcaactgcaac ctctactttc 840
 caggttcaag tgattctcat ggctcagcct cccaagtagc tgggactaca ggagtgcgcc 900
 accatgtcca gctaactttt tgtattttta ctagagatgg ggtttcacca tgttgcccag 960
 gctggtctca aactcctgag ctacaggcaat ctgccggctt cggcctccca gagtgttagg 1020
 gttacaggcg tgagccaacc gctcctggcc ccaaaactta accatctaata ggttgagaga 1080
 gagacagaga gagagagaaa gagagagaca gagaatgtgt gtgtgtgtga agacaaagca 1140
 aaaataaaaa aatattaact aatgggtgatt ctaggtagag ggtgtatgat ttttagtagt 1200
 tcattatttc aacttttcga taggtttcac aatttccaaa acagcagatc cagccatttc 1260
 atctgacaaa aactgttagc agcactacat cgtaatttat tgctaataat ctcatgttt 1320
 tactcttaaa attgtttcat ttactaaatt tccttagtga tgatggaggc tttatcatga 1380
 cagagtacag aggctctgaa atgagccagt gtctatgaag agcaccactg tttgcaagat 1440
 ctatgatctt gtaccagtt tcttttatct gtttaatttg gacattccat atctcttgag 1500
 tttgttgtgg aaataaatga gcaactttgc caaccacaga gtaaataaat aaatgttaaa 1560
 gagaataaaa gcatttttac ctctctctc cctcttaacg gttattttcac ttttaagatg 1620
 taaattttta gctttctgag atgaaaaatc attaaaactt aacaagaaca gagaaatgcc 1680
 atacatacat attttttgtt tgcttgtttc ctgagacaag gtttcaactc gtcacccagg 1740
 ttgaattgca gtggtgcaac ccccaagttg caatcctcca cctaagcctc cagagtatgt 1800
 gggactacag gtgtgagcca ccatgctcag ctaatttttt tacttttttg tagaaggggg 1860
 tctcactatg ttgccaggc tgccctatat tttataagaa tatgacttca aacacttagg 1920
 cattagcgac aagggtttgt ttttgtctt taatgacaga ggtatacctc aacatatttg 1980
 acacaactgt tagagatttg gtttaaaaag aaatagacat ggatgaagct ggaaactatc 2040
 attctcagca aactaacaca ggaacagaaa accaaacacc tcatgttctc actcacaact 2100
 gggagctgaa caacgagaac acatggacac aggcagggga acatcacaca ccaaggcctg 2160
 tcggggagta gggggctagg ggagggatag cattaggaga aatacctaac gtatgtagg 2220
 ggctgatggg tgcagcaaac caccatggca catgcatatc tatgtaacaa acctgcacat 2280
 tctgcacatg tattccagaa cttaaagtat aatacaaaat gaaaaataa ataaaaataa 2340
 gtagaaaaaa taaacatgta agcatgtgag ctgcctttcc taattctatg tttatgtatt 2400
 cactgaatac atagtatttt aaaaatagtaa tccaataata tatttgagtg tttgtgacaa 2460
 gtatgaaaat tgaattttt aaaaaatctt gataaatatg attgaatatg atttaattca 2520
 cttcactatt tgaactctt agggattatt tttaaaaata tgattgatat cctttgatat 2580
 gttttggctc tgtgtttcca tccaaatctc atctcaaat gtaatcccca ccgctctagg 2640
 gagggactgt aatcccatg tgtcgaggga gggaggtgat tgggtcatag ggggtggttt 2700
 cctcatgttg ttctcgtgat actgagtga ttctcatgag atctgatggg tttaaaagt 2760
 gcagtttttc ctgcactctc atctctctt cctgctggct tgtgaagggt cctgcttccc 2820
 tttctgccat gattttaagt ttcttgagg cccacaagc catacgaac tgtgagtcaa 2880
 ttaaaccttt tgctttata aattatccag tctcagatat ttctttaaag cagagtga 2940
 acagactaat acattcttca atttaaaaag ccatactttc tcatacaagt tgaaaccaag 3000
 aacaatatca tgcataatca agtgattaac tgtgtaaaaga taataagggt gaggagttca 3060

gagaagaaaa	gaaatgaata	gggaactgta	gtgataattt	aaaatagcca	tccctcactc	3120
aggggttttt	atcttcaggc	catgaagaag	cttttaaatg	tttttagcaa	aggaagtaat	3180
gttgggtgaaa	ggctttttct	gacgactaat	ggaaagcagt	gctatgtaag	gtgacttggg	3240
tatgaaccaa	aaccagaatg	actggtgaga	ggctgactga	atacagcaag	cttatgtgaa	3300
gacaactgga	gctggtgcag	tggaaaagga	agacagcagg	actgtaccca	caactcaaag	3360
aaaaaagtca	gaaggtaacct	cccgcagtc	aacctgaaaa	caacaaagt	aaaggaatct	3420
tttcaagaat	ttggagctct	cattcatatc	ctaattagtg	tatgaaatgt	gagggtggctt	3480
tgtcataatg	aaattacctg	gaatatttct	aacacaaaga	aataataaat	gcttgagggtg	3540
gtgaatatcc	tcatttgatc	attacacatt	gcatgcttat	agcaaaagat	tacatgtacc	3600
ccataaataa	ttgcaactat	tatgtatcca	taataattaa	aactaaaaaga	ttaaaaatta	3660
cctgaaaaaa	aatgctaaac	aggaaaggcc	aactagtctt	ggttacata	taaaaaacag	3720
aaattcttct	ctaacctcac	tattggagaa	atatcctgtt	atctttatct	atcttttttt	3780
tcaccttttc	ccaaatctga	gcaagtatta	taaaggata	accttcaaca	atcttttatg	3840
atgaggatatt	tgttacttgg	ggacaaagcc	ccagtgtctat	tacatagtct	agctaaacgc	3900
tgtagaatgg	taaaaaacaag	aaaatgctca	gcaaagtgtt	gtttctcat	taatgaaaaat	3960
cttatttttaa	aacacaaaaa	ctcaatatac	cccaaccaa	aatctgatga	acattttctg	4020
tttaatatatt	attatacagt	acctttaaaa	acgtaatat	cttattctta	aaaatttagt	4080
gtgctagcaa	atagcaatta	agtacctaa	tcaatcagga	cgacaaaaaa	atactcaatt	4140
tggggagttta	gttactttct	tcatctgaat	gcgtccctcc	aaaattcatg	ctgaaacctta	4200
ttcctcatca	tggcagttat	aagagggtgaa	gccttttgaga	ggtaattagg	tcatgagggc	4260
agagtctcca	agaaatgggat	caatgctctt	ataaaagagg	ccccaggggg	cttgtaaagg	4320
ttttgcccc	tctgccatgt	tgggggggtg	gggggtgggg	cgagcaacc	agtgtcaact	4380
ctgaagcaga	gagcagccct	caccagaaac	cgaatctgtt	gaagccttga	tctctgactt	4440
cccagcctcc	agaactgtga	gaaataattt	tctgttgttt	ataaattacc	cagtctaggc	4500
tgggcgtggt	ggatcacctg	aggtcaggag	ttcaagacca	gcctggccaa	tatggtgaaa	4560
ccccatctct	actaaaaata	cagaaaatta	gctgggcata	gttgtgggcg	cctgtaatcc	4620
cagctactca	ggaggctgag	gcaggagaat	cacttgaacc	cagaaggcag	aggttgagct	4680
gaatcaagat	catgccattg	aactccagcc	tgggcaacaa	gagggaact	gtctcaaaaa	4740
aaaaaaaaaa	aagtacacac	tctaacatat	tttggtatag	cagcccaaat	ggaatggact	4800
aagacaatta	cccttaaaat	aaaagctccc	atagagagat	catgcattca	agtacagagg	4860
ttcttaaggg	caatgggaat	ggaggacata	ttcctgcaaa	cttttcaaca	gctctcatta	4920
gcccgatggt	agagctctgc	aaagaagact	aaattatact	gagaaatatt	tttaaatctc	4980
cacacaatagg	aattgctgtaa	acgttgattt	acttatata	aaattagaca	aggttaacaa	5040
tatccaatgc	aatctaaatc	ttagggttgac	agacaagaaa	gccactgcaa	acaggaatat	5100
accacaatac	ctgatcttgc	cacatatttg	taaatatgca	aagtatttca	ataacttcca	5160
agaaacagta	ttactctcat	gagaaataac	atgatgtaag	tcacctttga	aactgtcctt	5220
gttacttttt	caaagtgtat	ttagtcattt	cttaacacca	aatgaaatga	aaaactgagg	5280
tggtaaatgg	tggctgctcc	catctctct	catctctct	gccttcacca	atacagcaat	5340
cattttttct	tatatgggaa	atttacagtg	ttgatatagc	tcagagatat	attgaagaaa	5400
agcagaaaaa	cgaaacttat	aaacattttt	ggaaacctta	tgtattttct	taaatagttc	5460
aagtgtaaaa	cttagaattc	ttataaataa	tgtgtgttac	agctatatgt	taaatgggtg	5520
ctcatgcctg	taatcccagc	acttcaggag	accgaggtgg	gaggagagct	tgagcccatg	5580
agtttgagac	tcacccgggc	aacacagaga	gacctcatct	cttaaaaaaa	aaagaaagaa	5640
agaaagaaat	gaaatgcaaa	gaaaaagtct	ctatttcaaa	tgtagccagt	agagccaata	5700
ggttaaccaa	tatttaacatt	aacgttgata	aaacaagaaa	tgatgattta	ctataagctg	5760
aaaatcagac	aatgtatgga	ctttaagagt	aacaggcagc	atcatcaca	acttaaatca	5820
ggtttgagtc	ctatgagtta	tatacagtta	catgatgcaa	caaaagatgc	cagccagttg	5880
ttaaagagta	ttagattcgg	ctgggggtgg	tggctcatgc	ctgtaattcc	agcactttgg	5940
gaggccgagg	agggaggatc	acgaggtcgg	gagtcagaga	ccagcctggc	caatatagtg	6000
aaacctgata	tctactaaaa	atacaaaaac	tagtcaggca	tgggtggcacg	tgcctgtaat	6060
cccagctact	cgggaggctg	aggcaggaga	attgcttgaa	cccagggggc	ggagggttga	6120
gtgagccgaa	atcgcgccac	tgcactctag	cctgggcaac	agagcaagac	tctgtctcaa	6180
aaaagagtat	tagattcaag	tcctgtttct	gtcattttat	atggaaccat	ggacacaact	6240
acctatcttt	cctgaacctc	agttttttca	actgcaaaac	aggaatatat	acatatgtgt	6300
atatatacat	ctgtgtaaac	acatatgtgt	atatatacat	ctgtgtaaac	acatatgtat	6360
atgtataaat	ggagataata	cctacattat	agtttctgag	ataataaaat	gcacaacaca	6420
attctgacac	ataacaattt	gtaacttaaa	acataccatc	accagggcc	ctagtttttag	6480
aacactgtaa	tgcatagtct	aatttaatac	tatgcaaaact	gtgttcactc	aagggttttat	6540

ttccttttaa	tttcattcat	ttactcttca	gttgttttga	agctaaaaag	tccagaatca	6600
tgaaattcag	aagtttacgt	tttaattgtt	ttctatatgg	caaggaaaaa	aaaaaggcca	6660
aagtcatttt	aacactactt	tcaaaatcag	cctagaactt	aacactaaag	gcatgaccca	6720
taaaagggaa	tactaataaa	tagacttaat	taaaattaaa	caacaacaac	aacagctaag	6730
cttttgttct	gcaaaagatc	ctgtgaagag	aatgaaaaca	taagccgcag	gctggggaga	6840
aatatttgca	aaccatattt	ccgagaaaag	tcttgtgtct	ataatatata	agaactcccc	6900
aaattcaaca	gtttttaaaa	aaagcaaaata	atccaattag	aaaatgggca	aaagacatga	6960
acagacattt	taccaaagag	aatatatagg	tggcaaataa	gcatatgaaa	acatatctca	7020
cacatcatta	gccattaaag	aaatgcaaat	taaaaccaca	atgtgatata	attacacacc	7080
taccaaaata	tccaaaataa	aaattagtgg	taacacccaa	tgctgggtgc	catgtggaaa	7140
aatagtcctt	cacacactga	tggtacaaat	gcaaaacagt	acagtccctc	aggaaaggag	7200
tatggcagtt	tcttacaaaa	ctaaacatgc	acttaccata	tgaccaagta	attatactct	7260
tgaatattcc	cagaagtaaa	aatgtcttct	ccaaaaaact	tatacatgaa	cgttcatagc	7320
tgttttattc	gtgagagtca	aaaacagaaa	gcaatcccag	ggctacccat	taaaacaggt	7380
gaatgcttat	aaactgactg	taataggctc	gtcccacgga	atactactca	gcaataaaaa	7440
ggaacaaact	actggatat	gcaacaactt	ggatagatct	caagggagtt	atgttatgtg	7500
aaaaaagtca	atctcaaaaag	gttacacact	gcatgactcc	actgatataa	cattagtga	7560
atgacaaaaa	ttttagaaat	ggaaaaacaaa	ttagtagttg	tcagagggtta	gggaagaaat	7620
gcagtaagggt	agggtggctgt	ggctataaaa	gggtagccta	agagatcctt	ctggtgaaac	7680
gggttatatt	tgaaatttag	gtgaatttac	atatgtgata	aagattgcat	agaactaaat	7740
acacacacac	agtatatgta	aaactaagga	aatctgagta	aggtttgtgg	attataattaa	7800
tacaatttcc	tggttgtgat	actgtactgt	aattatgcaa	gatgttagaa	ttgggggaaa	7860
ctagatgaag	ggtagtga	tctttctgta	ttatttctta	caattgcatg	tgaatctgta	7920
attatctcaa	aataaaaaat	tttttcaaaa	tttcaaaaaca	actagtctag	agctttgtta	7980
atcaaagttt	tctctgagga	cctgtagcat	tttggttatc	acctggatct	tattaaaatg	8040
tagatttctca	ggctgcatat	tggaaattcct	gaattggaat	ccgcatttta	acaagatttc	8100
caagtgatcc	atgtttcaaag	tttgagaagc	actagtctac	aacaatgact	tttaaccttt	8160
caacctactc	taacacactt	gaaggccata	acaaaattca	catcaataac	agttgctcgg	8220
ttggacagtg	actctcaaca	caaagttagtg	aggaaagggtg	gggactcaag	actcaggtag	8280
caggaaaagc	cccttaggtg	atcctgatga	aatgttttct	ccatcctggc	tgaaaaaccc	8340
agaacagtca	attaaggctc	aaaacaaaag	taatgtttat	aatactggag	atctttaaaa	8400
ggcagataat	atatactata	acagagcaaa	ggtaattatt	acaatgtata	aatcttataa	8460
gaacaaaaat	cagaattaaa	atcactaagc	acataatgaa	aatcctttta	aaagtataaa	8520
aatgaatgta	gtctaagtaa	atactaataa	tggcagttat	agtgaagaaa	gctctagagt	8580
cttttactct	tcatacttcc	tagtcacaaa	catctatttc	caaaactgac	ccttcgtatt	8640
tcaaaataat	tatggcctgg	tacagtaata	agagcatgat	atttaaagcc	agtcagaaga	8700
cacatatctt	agctctggat	ggcacttgat	gacgatggat	tcagcttatg	gttccaatcc	8760
cagctctgtc	aatttagtacc	tatatgaccc	tagtcaaaata	cttaaacctt	cttgtgttac	8820
ttgtgtgtca	attgtatcat	ctataaaaatg	aggatattaa	cagtatatata	ctcatagatt	8880
tttttgtgaa	ggttatacaa	ttaattcata	taaagtattt	agaacaatgt	ctagcacagt	8940
gaattctcaa	tgagtgttat	aattgttctt	tttaaatgtg	acttgactct	caacagaact	9000
ctactgaatt	ctaatatgta	ttctgtattg	agctgtcaaa	aaaaataagg	attataataa	9060
catatactat	tcttgtagtc	aacctgttta	ctatgttatt	actagtgtca	gttttgttgt	9120
tttggtcata	catattgttt	tacatacatt	aagaattatt	agaaatgttg	gtttattaaa	9180
aatgaccatt	tatggctaga	agggtatata	tctggctcac	tgactgtgga	gtcaatgtcc	9240
ataaagagga	ggaagaatgc	catcagagta	aaaggagatt	ctattcactg	aaacaaagtg	9300
ataaaaagct	atgaaagaga	aaaacataaa	ataaccaaaag	gggtgaaact	taacagatgc	9360
ccagtagatg	cacaatgcac	tgggttgtaa	aacttaaaat	ggccttaatt	aaaagccaag	9420
cacggatgga	ggtgctgggg	gagtctccta	cggacacagc	aggcagaatg	taacaatgac	9480
aaggggctca	agtttattta	aaaagagatt	ggacaggccg	ggcgtgggtg	ctcacgcctg	9540
taatcccagc	actttgggag	gctgaggcgg	gtggatcatg	aggctggggag	ttcgaggcca	9600
gcttgcccaa	catggcgaaa	cctcatctct	actaaaaata	aaaaaaatta	gccggggagt	9660
gtggcgtgca	tctgtagtcc	cagctactca	ggaggctgag	gcaggagaaat	cacttgaacc	9720
tgggaggcaa	aggttgcaat	gagctgagat	catgtcactg	cactccagcc	tgggcaacag	9780
agtgagactg	ctcaggatct	cccaaagacc	caaactccctg	taaactgaat	gcataatatc	9840
attgtctcca	gtaggcttta	gatggacatt	ctagtcttct	tgggtgagct	gaagaaacaa	9900
atattatatt	gataatttat	gtatgttgta	tttttcaagg	tatagcaaca	agtttttatt	9960
catcagctac	tttgtgtgtg	tgttttgttt	ttaagtcttt	tgaaacagga	tggtgattta	10020

ctacatttat	aagtaaaatt	tatttgattt	acaagggttg	cttaagtgtg	tcacaggatt	10080
tcacttggtt	tatttgcagg	tgcttaaaaa	atcagctata	ctaaactata	actggaatta	10140
gcaaagttca	tttattgatt	aatcaagaat	ataattagat	ttgcctaact	atataagtag	10200
tactatgtgt	tatttaagaa	ttaaattctag	aaaagggatg	gactctggaa	atatcaagaa	10260
gtgaaaaaga	ctgctctcat	ttttgtacaa	caattactaa	atcttctaagt	agcattaatt	10320
gaactgaaaa	ggcatttttag	aaaaactaga	ttttacaatt	tataactcta	ataaaacaca	10380
actaactatg	agtgtgcttg	ttcatgcccc	aaagctacct	tccaaaatta	aaaaccctat	10440
tggtatggctg	ggtgagagg	ctcatgcctg	taattccagc	actttgggag	gccaaggcgg	10500
gcggatcacc	tgaggtcagg	agttcgagat	cagcctggcc	aatatggtga	acccgtctct	10560
aacaaaaata	caaaaattag	ccgggagctg	tggggggtgc	ttgtaatccc	agctactcgg	10620
gaggctgagg	caggagaatc	acttgatcct	gtgaggcgga	ggttgagtg	agctgacacc	10680
gtcccactgc	actccagcct	gggcgagagc	ccagagcgag	actccgtata	ttaaacaata	10740
caaaaacaaa	ctcaaaaaac	cctattggca	attactaggg	ccatcaaata	agtatatatt	10800
cacttgacac	acaattttga	gataatgaac	cgaacttact	atttttgaaa	atattacata	10860
ataaatatta	gtgaagcttc	attgctgaaa	tggtgacaaa	gatgaatagc	aataaaactt	10920
ttcttataga	tcttttagcaa	aaacaaaaaa	acccaagca	tactatggta	cattacttta	10980
gagaatcaag	tagctgctag	ttgagtaata	gtggtaatag	gcactacaat	gatataaaca	11040
aattacaaca	aagaatattg	tttttatctt	ctgtccatgt	tttaaaaaag	ctttgggttt	11100
acctatgttt	aacaaaagca	taggtacaac	aacgactact	actactaaca	tataagttag	11160
ctggatagaa	ttatcttaat	agtagtacct	aagtgagga	tctctaagta	atgatcagaa	11220
ggcaggaata	aattttatca	gaaatcttca	ttcattacat	atcttactatg	catttaccag	11280
ggtatcacta	tgctaattgga	tacaaagata	aataacatgc	aaacaactgt	aatacagtg	11340
tatgtgataa	cagaaatatg	tacaaagcac	tatgaaaaaa	attacaaagc	ttgagcacaa	11400
attttaactc	tggacttact	ggcattttaga	gcaaaaccaa	aacaatccta	actgggttaa	11460
ttcattttct	aagagttgga	agctatatca	gtaggtacaa	agtaaaatat	gtaattgtg	11520
gtagaaagta	aaatattaca	acagtagaga	atctcaaaag	aagataaaaa	taatggagg	11580
aatatagaag	gtcttcaagc	ttccagcttg	aaatacatat	ttttttttaa	atagagaaa	11640
agataaagtc	atgtgagtat	tcagagggca	gactgaatat	aatggtactt	ctgagaaatc	11700
agtggataag	gagagaaaag	tggaactaaag	gccatagcat	atagagcttg	gaatgtcaaa	11760
tgtagtggaa	ataacaaagg	tttgggttga	atcccaactc	ccaacaacgt	actgtgtatc	11820
tagagcaaat	tacatcaacc	tttgggagta	ctgtttctga	atctgaaaaa	tgaggaaaaa	11880
ttatctttga	acaattgatg	tgataattaa	atgagatata	tgaaatatct	aatgtaacaa	11940
gtgcttaaca	atgactagtt	cttttcattc	ctctcttgaa	ccattgtgaa	acgtagaacc	12000
aagaaaggta	acagtattta	gttgtttacag	aacccattaa	gagagaataa	aaaataactg	12060
gtattctaac	ttcagtttcc	tttgaagtct	tggttaatgag	aataaatatt	atgtggcaca	12120
aagaaaaaga	aaacaggggt	ttacacagga	tatgctgcca	gactttacca	acaatgacac	12180
atgatatctg	cttcaactgt	cccattgcata	tttggcttaa	gatataattca	tgcatatcaa	12240
atttttacatc	acatgggtttt	caaaaagaaga	ttcattaaaa	ttagcttaag	aatgtacaca	12300
atatacaata	cctcattaaa	taaaaagaac	agaccatttc	caaataaatg	cttttagagc	12360
tttacagtaa	acagtctttt	ggtggtagaa	agagggggaa	cagagagggg	agtgggtggg	12420
agtctgtagc	acttatcaga	ctacttttat	ccttttatgta	gagaaatagg	agagttgaaa	12480
ataagcactt	tctgtactta	tggttgagagt	ctgaagccca	cttttaatat	tcttgacaac	12540
actaaaaaat	aataattaac	atttgaaaag	ctgtcattat	tatagtcagg	gacacttaat	12600
ctccaaagga	gaagtttctt	aattgatact	atgattaaat	aaaagcatcc	atcagaatta	12660
tatccacaat	ctgggtttgga	gtttatgttt	tgtcttattt	aaattgttat	acttattata	12720
attctgtcta	gacagtgcca	aatgtacttt	gtcatacaaa	cacttgaggc	aaattttctt	12780
caaataagcg	caacactttg	tttcctcttc	gtatcctttg	actgaataac	gtgtggtaca	12840
gagaagtaat	acttcccttt	cttgggatcg	agatcaattt	gatgcttggt	ataagcccat	12900
ttacagaaca	aattggtattg	cttttaaat	tttatatgaa	cttatcagta	gactagccaa	12960
aaaagaagct	tcatataaaa	gtgctaggat	tgatattctt	agtaataatt	aggtaaattc	13020
tctaaaattt	tctcccaaaa	gatctgaaaa	atcatacca	gggaagtata	gtttaaattt	13080
cattatatat	aatagcttta	aaatatcttt	gctaattcta	cccaaagcca	cactaaaaag	13140
actaatacaa	aaagaatgta	attaataaac	tattttcttc	tgaagaatca	aagggcactt	13200
ctgcatatga	acatgtttta	tctttttggt	gtacttacat	aaaataatta	agaaacactt	13260
ttaatattga	taacaaaga	aatcaaaata	ccaagaagaa	atgtctgagt	aaaagcagct	13320
gtgctgacct	caaaagtga	attctgttct	cttgatgccc	agttaagtgt	ctaaccaggt	13380
gaaaagtgat	tctaaacctg	ggctaggagc	tagtgagagt	cttcaaacag	tctcacctac	13440
cctcacccct	caaggaatgg	tctatgggtt	ctgtggtgaa	cgctaaagtt	tataacatgg	13500

gaatatatttat tattttgttt ctaacacaaa taattttttaa aaattttatt tactaaagta 13560
 acatcaaagg gaaatttcat aaaaattcct ttgaaatttt tagaagtagc aaataaaggc 13620
 aagtataaaa tattttacag atttcaccac ttacgtaatc tgatcaacaa atttttaaaa 13680
 catagcactt gaatactatt aaaaatata taaaaaggta acatagtata actataaaa 13740
 tcttttaaaa aaatataaga ggaaaccttc gtgaccttg attaggaaat ggtttctta 13800
 atacggcaac ctaaaaatac aagcaacca agaaaaaac agacaaactg gacttcatca 13860
 aagttaaaaa cttttgttct tcaaatgaca tcatcaagaa aataaatccc acagaatggc 13920
 acaaaatatt tgcaaaccat atctgataag agaccactat tcagaatatg taaagaatt 13980
 gtaaaactta taaataaaaa gttaaagaag tcaattttta aatgagcaaa ggatctgaa 14040
 acaatttctc taagaaatac gaatggctag ttaaatgcat gaaaagatgt ttagcatcac 14100
 tggtcattag gaaagagcaa aaacccaaat gatatactcc ttcataccca ctaagactgc 14160
 tgtaattaaa actatagaaa ataagcgttg gcaaggatgt ggacaaatg gaacctctc 14220
 catacactga tggtagaaat gtaaaatggt gcagatgctt tggaaaacag tctgacaata 14280
 ccccaaagggt ttaaacgttg aattaccatg caaccagca attctactcc taagtatcta 14340
 cccaagagaa atgaaaatat atgttcacca aaacatttgt acataaata taactgcagc 14400
 ttttattcat aatagccaaa aagtggagac aatccacatg tctatcaatt ggtgaattg 14460
 taaacaaaat gtggtatctt catacaacta ttactgggccc aaaaaagaa tgatgtattg 14520
 atacatgcta caaaatgaat gaaccttaaa aacaatatgc aagcaaaaga aaccagacac 14580
 aaaaggccat atattacatg atgctaatta cataaaatgt ccagaaggga gaaataaat 14640
 agtagttgcc aggggctgga gggaggggga atgataaag tgactgccaa tgggcattgc 14700
 gtttcttttt aggtgatga aaatgttctg aaattttatc acgggaatgg ttgcacaact 14760
 ctgtgtaact tagaattcag tgactcctaa aaccaatgaa tagcatgctt taaaagggtg 14820
 cctttgtctg gcatagtggc tatagtctta gctacttggg aagctgaggg aagaggatca 14880
 cttgagccag gagttccagg ctgtactgca ctatgatcat acctgtaaat agccaccata 14940
 cacaccagcc tgggcaacac agacctgtc tctaaataaa taaacaaata aataaataaa 15000
 agggtagacct ctgtagtatt gagattatag ctcaagtaag ctgttattaa aaaaaaaa 15060
 gttatcatat ggtggcagg ggaatcatt ttgggtgat ggctaacttc atcagtatt 15120
 gatttatacc tatgcatcat accttatgtt tgttttatgc attttgtggg ttttttaaaa 15180
 aaattatatt tcataaaaac aaatttttaa aaaattaaag tcaagaacct caaaacaaca 15240
 aagatcagag atacatttct accttatcaa ttcagaaaaa ttacaagttt ttttcttaa 15300
 aattgtatag catcatggtg attttaagtt acctgtagga atttaataaa ctttgtctta 15360
 actgttcacc aaaactcatt taatattcat gttctgatac tgaaaatgaa gctgaaaagt 15420
 tttgaaaata caatatgcta gtttaaaaag gtttactaaa atacataatt tctattataag 15480
 gagtaatatg aaataaaagt atcaaatatg ggaccattaa aaatgtcctt actaacaata 15540
 tgctaccacac attgtggact cactgcgtcc actgtttgag agcttttcca gaacgtctgc 15600
 caccagttag ggtagccaag aactcctcat cttcactttc ttctcacta gcttggaaac 15660
 tctggattcc ccccacact gctgtgacct gaatggggaa gagaaacgc atagtaaggc 15720
 aactcttctt tttatagatt tctgaattag aatctggcat tacaataaga caatgttata 15780
 aatccaggtc agagttrata gttctatttc actattactt atatggcttg tcttaggaac 15840
 ttaactatta tttacaatgt aagtacctat ttccacaaaa aaattcaaaa ttttggata 15900
 caatatctga agagagaatg gtctattgaa tccaaagtag gctgatacat cccaacagta 15960
 tttcagattg agataataat aataccacca attcatcaag tcaaatata tgcttatttt 16020
 ccacaatgga agtttttaaa tagtataaac attttaatat atagcaggct taacttatga 16080
 ttattaaaaca gggttctaag aaaatagtat acatcaaata ttaatgtgct tctgtataa 16140
 tttaggtgac aatttatcca tctgagaaat gcaaaagaga ctttggttag ggggttagta 16200
 aggagcattc tgtgtcaaag aattcactag caaaagaggg tatactgtag ttacaagcta 16260
 taatcactgt acttatttta aatccctctt cagaaccagg tcttaaaaaga tgataaaca 16320
 ggctcatga ataactatca accaaactat agaaaagagt gcaagagtgt ggtgttctaa 16380
 cttaaaatat ggtgttttat tcaataaatt ttatttaagg ctccaaaagc agcagcctca 16440
 ttccccagaa atcatagtta aatgaaatct tcttacttaa aggaaaaatg aatcacaata 16500
 tttaacgtga acatttttaa aacactctaa agcaacaaaa ctattcaatt gtatgtgata 16560
 tggcttagaa aggcattgtag gtaaaaagga ctaaaaactc taataatggt tgggccaaaa 16620
 gtaaatgtgt tagttctact ccattaagca ttctcaagc agtgtaaaaa tcagagttca 16680
 agttacactt tgatgtgtag atcctttgaa agccactcta cctgttttta tatgaagcat 16740
 ccgcagctaa aatgaacacc tagtgaagag tatgaatgct gcaatacata agcagacgtc 16800
 agaattgtcc caagctgatt ctaagttact ttaaactgt atgcagagtc agaatatgac 16860
 ttaactctta gaagtacacg ataattacct ttggcataat gaaaaaaact ttaaatgtaa 16920
 gtaataacag gtattttccc tttagcaaa ctttgctttt aaaagaaaaa ttcaaaact 16980

aaattaaaat	aggaaatgct	ctactatgta	gtaaaaaatac	tttttagatt	actgaagcaa	17040
agaaaaggaa	ggattctatg	agggaggaaa	agtgggagaa	aaatgtaaag	aaaaaaagca	17100
agaaggaaag	aaaagagaaa	aggaggaaaag	aacacaagga	cagaaaggcc	tattgaaata	17160
tattatttct	ttcaaatttt	aaacgagcag	aataaattct	tttgttttat	aactatgaaa	17220
taatctatgt	tcctcttctc	tatgcttgga	aaatttagac	aaaatgttaa	gagtaagtac	17280
tacattggat	ttccgggtct	tcagctctga	aaacaagctg	tttcttaaca	tacgtcaatt	17340
ttctatattt	catgtcattt	ctatttgcaa	atgttataaa	gttcaatatg	atgtaaaaaca	17400
tggttaaatg	aagttcaaaa	ataagtataa	catacattag	tttggtctatt	ccaaatttca	17460
tgcacattaa	ctcagccaca	catctaacac	agtcagccct	ccctatccag	gggttctgca	17520
tctgcagatt	caactaacca	tgggtcgaaa	atgtttttgt	accaaacatg	tacaggcttt	17580
ttttcttggt	atcattccct	aactacagta	taacaactat	tttcacagtg	tgtacatgtg	17640
tatgaaatat	tataagtaat	ctacagataa	tttaaagtat	acaagagggt	atgcataggt	17700
tatatgcaaa	tactacacca	ttttatatca	gactctcaaa	catcagtaga	atttggtaac	17760
ccaggagggt	cctggaaact	atcaccgaca	ggatctgaca	gatggctata	tataaacac	17820
tcagtgaatt	caggattcac	attatttcac	aactagtata	attttatggt	gttcacataa	17880
ttgtgtcaca	acatatacat	gcagacaggt	gactttcatg	aaaagattac	acccaagata	17940
gacatatggt	ctactcaaat	acggtttcca	aatgtgtatc	caatcttggt	taattataat	18000
caaactcacc	attccattga	taagcgacct	ctaccaacct	gcttatcccc	tccaagcaat	18060
ataacagtggt	ttctctgaac	caatattgac	cctcctttaa	attgatagcc	tttttttaaa	18120
aagctaaacca	ttgagaagta	catactgttg	aagacagaac	atattctgta	aaatgctccc	18180
aagatatcaa	agtcagatga	tacaactgaa	tgtttatgct	agattatatt	tctaagctga	18240
gaattacatt	ttaatatata	ataagcaatc	tgcaaaagaa	gcaacttgcc	taaagatttc	18300
aggagtttca	agtatgcata	tgtcaatatc	tgtatcaata	tgtaatatca	atataatcaa	18360
tgcacacaac	aatacgtaac	tgtacttata	tcactctcct	agcactaatt	attacaaaca	18420
atctgcatgc	actgcaaagc	aaaagtataa	tataaaatcc	caaaaaacct	tgaaaattta	18480
ataaaaaccaa	aaaacaggca	tcacacacaa	gaactgaggc	gtatacttca	ttaatgagta	18540
tgatatcctg	atatgaaatg	tcaaacaaaa	ttaccaggcc	tcagggttaga	aataaagata	18600
ggacattagt	ctttgtattt	ttaaattgat	tttttcttct	aatattcctt	aatgataacc	18660
ctatatatta	cctacttaaa	attatttagca	aatagttatt	ttaaaagtat	gagtaattag	18720
acaaaaagca	actctcatat	ttacccaaaa	gaaggaaacca	ctaccaagaa	tcaaagccta	18780
gtaattctgt	tcttaacaga	caggtgttgt	gtattctggc	atgttacatg	aaaatcactt	18840
atgagaagaa	cagaaaaaaa	aattagaagg	tagttttcac	tatggaaata	ggtaagtgat	18900
taagcagatt	ttcttacacc	atgaaattgt	cagcagactc	aataatcacc	ctaaggggca	18960
tcattctgga	tgccgacatt	ctctatgatg	gaaagggact	gaaagtaaaa	tgactaatg	19020
acataaagaa	accaatatcc	aatagtaaa	ttgaagaaat	aaacattcct	tggacaggaa	19080
ctaagctgaa	gtttgcaact	accaagaatg	tattatgcca	gcagtaaat	aggaaactaa	19140
agcccatgtc	aaccaatgaa	aaatgggagg	actgaaatca	atcattaaag	cagcagcaag	19200
gttctaacta	ttctaaggta	taggtacct	ctggcgata	ttatcagagt	tgacaattct	19260
tccaagaaat	tctaacatca	actgtaatct	gaggctcctt	aaaaaataat	ataaaccagg	19320
cagtagactt	acattttgta	atattttcct	ctaagagctg	tacattaaga	ttttatttgt	19380
gatataaata	ctatcaaata	attagctata	gaacagctct	attttcaaca	gttataacat	19440
tttaagccat	ctcacattta	acctaaactt	ttatcaaagt	tcaaaactga	ggccgggtac	19500
ggtgggctaac	acctgtagtc	ccagcacttt	gggaggccaa	gatggggcga	tcacttgagc	19560
ccaggaattc	gagaccaacc	tgggcaacat	ggtgaaacct	catctctata	aaaaatacaa	19620
aaattagctg	cgcttggtgg	tgtgcgcctg	tagtcccagc	tactagagag	gctgaggggag	19680
gagaatcacc	agggcctggg	agatcaaagc	tgcatgagc	tgagatcgtg	ccactgcact	19740
ccaccctggg	tgacagagtg	agaccctgtc	tcaaaaaaaa	aaaaaaaaag	aaagaaagaa	19800
aaaaaaaaatca	aaactgatca	cttgagggtcc	aacttatggt	tactatatct	acttatattc	19860
ccaaagacat	cttaaggaga	gatgaaatca	taaaaagggt	aggatgagaa	agaaaatagt	19920
aagtcagtaa	ggtcaatttt	tacatatatt	aggctagcat	aataaaaaata	tgagtgtctt	19980
attattattt	ttttttgaga	cagagtcttg	ctctgttgcc	caggctggag	tgcatgggtg	20040
caatcatggc	ttactgcaat	gtctgccttc	caggttcaag	caatccttgt	gcctcagcct	20100
cctgagtagc	tgggattaca	ggtgtgcgtc	accctgccca	gctaattttt	gtattttcag	20160
tagagacagg	gtttcaccac	gttaaaccat	gagtttggcc	aggatgggtc	caaactccca	20220
aagtgttagg	attcatgctg	tgagccactg	cgtctggcct	aaagtgtctt	attataacca	20280
agaatttatt	tgtggagaga	ggtaaaagaaa	actcattttt	agtgaataaa	ttaaaactgc	20340
atcattcaca	atctatcttt	caaaatgagg	tattaactat	tttggcttct	aaaattaccc	20400
catatactac	atgcatgagc	atgggaattg	aagttatttt	attcctaagt	ttgagacttc	20460

atgttttaaat	gtgatcacta	aaaatttcct	aattgatgat	taggaaaata	actttctgta	20520
aaattccaga	atttttagctg	tttcaatctc	ttcatattaa	ggggagaaca	ttatgttttt	20580
actttctgtg	catgcacttt	ctttattaga	agaaaatgga	ctgagggcag	taagcaaccg	20640
aaaaggaaga	gtaataagaa	gcctgatgtg	tgtgaaaact	ggagaacagt	ctcaaatcat	20700
aaaaagttaa	gacagaagag	gcataaaaaa	taaaagtaat	gaacttaata	tatgaaaggt	20760
aataatgatt	aagagcatag	gctataaagc	cagactggac	tccttggtat	caaactctgg	20820
ctcttctaata	tactaggtag	gtaaccctga	gcaagtttca	atgaccaatc	tttttctcaa	20880
ttacctcagg	tatataaagg	ggacagtaac	agcattttaac	ccagaggaca	ataaggatta	20940
aataaataca	tgtaaaaata	tttaaaacag	tacctggtat	tcaataaagc	gcaataaatg	21000
ttagctgcta	ttattattca	tctaaacttg	actttcatta	ccagcaatat	tttttaactc	21060
taaaaatatt	gaataaaaaca	atgacctagc	ttagttaata	aattcataat	gagaaaaatg	21120
tgatttcatt	taataataac	tttagtagtt	tgggataaca	ctttgcatat	tttaattttcc	21180
ccagctataa	ataactcaaa	taatttgcca	tcagatgatc	tggtattttt	aagttaacaa	21240
ataaagcatt	tcctaaaaaa	gttctaatac	ataacttttg	ctctcatctt	atgttttaaa	21300
aacaaaatgg	caaatcatct	gcatcaaata	gttcctactc	ttataacatg	acaattgttt	21360
taaaatatat	ctgctggaaa	aagcaactga	agtcctagaa	aatagaaatg	taatttttaa	21420
ctattccaat	aaagctggag	gaggaagggg	aaaaacatat	ctgccaaaata	agctttaat	21480
taatagtgtg	tttcagtttt	caaaaaatcca	cataggaagc	aatttaagcc	taaattgcct	21540
aagtctcaat	ctcagcgtag	tagatagctt	agggcaatca	aaacttgctg	tggtgggctg	21600
ccccctacag	gactcaattt	acctatttct	tttaaaagg	gtgtaagtag	gaaatatgat	21660
tcaagtttta	cattaacaat	attaatgcta	aagcagatga	ttatcattca	cgcattcact	21720
ataggaggaa	acagtctctg	agaaccatct	atagagatac	agagagaaat	gaaacaatcc	21780
ttgtccittga	ggaatttaata	gtttactgct	tacagagaaa	ctacatacat	ggtgaaatat	21840
ttaaaaatag	ctcatgatat	cctctatgat	attatgtttg	ctatagaaaa	agaacaaggc	21900
tgaagatcta	agatccaagt	tctactgttg	gctctgccat	caaacaataa	gctaaacaat	21960
gtacaagtca	gttttgggga	agctgtctta	ttcccaaaat	gaggagggtta	aattagttaa	22020
ttcttccagc	ctctatggct	ctaataattcc	acagttacat	ttgtcaaaaac	aaaaggtaga	22080
aggaatgttt	tcaaaaacag	acttcgcaga	aagaacatct	atatgatatg	aagggtctgg	22140
gcatatgtga	agaaatcaag	gaagacttct	tgaggaaggt	gacatctgaa	gtaacttttag	22200
aagcactctg	ggagccaagg	ctattcccag	gagttaacag	agtcagataa	taaaagatca	22260
aagatgttta	ggggaatagc	atgcagtgtt	atttggttgc	agtctagcta	tatttttagga	22320
aacatcaaat	taatatcagt	ataaaaactca	acagaatgga	gggagaaaaa	gcaggtagaa	22380
aaatctaaga	accactaaaa	tagttcatct	agaagataaa	ggacccatga	gctaaatcag	22440
tgcaaatggc	aagaagggaa	taaatgaaga	cagttctggt	ccattagaac	tgcaactcaa	22500
caaaaagtgat	caaaaagagtt	attccaaggt	attgacctgg	taacttgaag	aaaagtaaa	22560
aaagaggaaa	ctggacactg	aaacagaaga	agtagattat	gtatttggtg	gtgaatggaa	22620
gtagattggt	gggaccagtt	agaacctcac	agagaagaac	tatgttaaga	ccagaaatac	22680
ggccagggtgc	ggtggctcat	gcctgtaatc	ccagcacttt	gggaggcctg	ggtgggcgga	22740
tcacctgagg	tcaggagttc	aagaccagcc	tgacaaagat	ggagaaaccc	tgctctccct	22800
gtctgtacta	atacaaaaat	agccagggtg	ggtggtgcat	gcctgtaatc	gcctgactct	22860
aggaggctga	ggtaggagaa	tcgcttgaac	ccgggaggcg	gaggttgag	tgagctgaga	22920
tcgcaccatt	gcactccagg	ctgggcaaaa	agagcgaaac	tcttgtctca	aaaaacaaac	22980
aaacaaaaca	aaacaaaaca	cagaaatata	tcaattaaaa	aagttaggcta	ttcaccagat	23040
atgttccact	ggtcataaaa	caaaaagaata	caggaggcat	gacaagccat	catcattgct	23100
gttaaaaata	ctcacagcaa	aattataatg	atttaagtca	ataacatcta	ataattccag	23160
ctatagtgtg	caatttaatt	tattatgtgc	caggcacaat	agtttattaa	aggtattacc	23220
tctaattttc	acaataaacc	tatttttacag	attataaaat	ggaggcccag	agatgtaagg	23280
tgaacgagcc	aaatcaccta	gttacctgga	atataaaact	agaactgcct	aaatcaaaag	23340
ctctcaatct	taaccacatg	ctatactgat	gcatgtcaaa	gattcaattc	attcagattt	23400
ttcaagggtta	tcggaaaaac	tatgtagata	aaaattttcca	aaataatcaa	ggatatgtaa	23460
cttttacaga	aagcaatcac	tgatcatcta	ttgcaatact	catgttctta	agcaatatat	23520
tgagttgaaa	tttttatatt	ttataaataa	ttagaagaaa	tacatttttt	aaaactttta	23580
aaaacacctc	agttttttatt	ctcttcccca	aatttcaaca	aaatccattt	atccaaactt	23640
gaggttgaat	cattaaagtg	gtgatatcat	cagtaatagc	agagttagga	ccctgaatat	23700
actctctctc	ataaaagcaa	caagaacaca	aaaatttctca	aatgaactt	tttctgaaat	23760
ctttcaaaaag	ccccactctc	agaaaactgt	cattattttga	tctgccagtt	ccctagaaaa	23820
acctccctca	taggacatta	tttgacttga	ctcagagctc	actcagtgca	aacaatttta	23880
tcaccaggag	agtttgtgga	aaatcagttg	caattgttaa	acatcacatc	tgccatgaga	23940

tagcaataac	agatgggaca	aacaagctaa	ccaaaaaatt	aaaagaaaaa	cctgggaaa-	24000
aagaaatcca	aaggggggtct	gaaaagttct	aacatatctt	tgataatcca	gaaagccata	24060
cacatgtata	gagctgtgta	cacgctcaaa	aaacatctac	gaaggcccta	aactctcacc	24120
tatgggaaac	cctgaggctc	tgtacaagaa	gaaagtaaaa	tccagttata	aattgcttgc	24180
cgtatcattg	aaggcaatgc	cccaacattc	acacataggc	ccctggcaaa	gattggaaga	24240
tactctagtt	ctaggcattc	aagaaaatct	cttctaatac	tcagatgata	actaaactca	24300
ccaagcagta	acttttagggg	cctgtgtgat	aaaaaataaa	aacctgaaag	aattagttca	24360
ggaaagaaac	taaacaagca	acagcaacaa	caaaaacaga	ccttgggaaa	ggggggaagc	24420
atctggtttc	cagagttatt	ctgtttatac	atataaaaata	ttcagggtctc	aacaacaaca	24480
aaattacaaa	gacatgcaaa	gaaacaagta	taagccacaa	actgggggga	aaaagcagca	24540
gaaactggcc	ctgaaaaaga	ccagatgctg	gacttactgg	acaaagactt	taagagagtt	24600
atttttaaata	tgcgcaaaga	actaaaaaaa	agttttatcta	aagaactaca	ggaaagtata	24660
agaacaatat	ttctgatcct	tcagaagaac	cactttttgt	cactacagat	tagttctgtc	24720
tggtctagaa	cttcttaaaa	acagaatcat	agagtataatt	ctcttttata	cagctctttt	24780
tactcaacac	aatgtttgtg	gagattttatc	catgttggtg	catgtatcat	tcccaaacag	24840
aaatagaaat	tatagagata	aataggagtt	acaaaaaagt	accaaacaac	aattctggaag	24900
ttgaaaagca	caaaaactga	attaacttga	ggggctcaac	agctgatttg	ggcagccaga	24960
agaatgaatc	agcaaatcta	aagatagggtc	aattgcgaga	aagagaggga	agaagggaag	25020
aaggaaggaa	aggagggtca	gagacccaag	agacaccatc	aggcatacca	atatacata	25080
aatgagaggc	ccagaagaag	atgcagaaaa	agggctcagag	tatctgaaaa	aataatggcc	25140
ctaaacttcc	gaactttgac	cccaaaaatt	aatctacaca	tccaagaaga	tcaacaaact	25200
aaaaagaata	aaatcaaaagc	gatccacacc	taggtacatc	ataatcaaat	gactgaaata	25260
taaagagaga	ctctcaaaac	aggcaaggga	cttatgtaca	aaacatcttc	agattaataa	25320
caaattttctc	atcagaaatg	atgtttgtcaa	taggcaatca	gatgacataa	tcaaagcact	25380
gaaagaagta	gaatgtcttg	gacctggaat	gctgggtggac	acctgtaatc	tcagtatttt	25440
gggtggccaa	ggtggggagga	tcaattgagg	caaggagttg	aagaccagcc	tgggcagcag	25500
aaagaggctc	tgtctctaca	aagaataaaa	agattggctg	aatgtgggtg	tgtggacctg	25560
tagtcccagc	tactcaggcg	gctaagggtg	aaagatcgct	tgagcccagg	agttggaggc	25620
tgacgtgagc	tatgactgtg	ccactgcact	cttgacgtgg	agacctgtgc	tctataaaga	25680
aaaaatgtca	acaaaaaact	acatgcagaa	aaactgcact	tcaagaaatg	atcagtacct	25740
tgaagctctg	aagggtgctta	agactgtaga	tcaataccat	agaaaaataat	ttagtatttta	25800
ggaatgtaag	aaaattaaga	cagccttggt	tgataactac	acataatact	gtaactgttc	25860
ttgcactggt	ctggttattg	tcaagctatg	agcacaaaact	gatgactgaa	atacagaata	25920
cagaacagga	tataaaatct	tatcaggtaa	agttaggcaa	gcaattacta	gttgtaattc	25980
aacttgaagg	agaaggaata	aggaaccaac	tcaaaccagg	cagcaatgaa	ttgtaaaaaa	26040
gcttaaggta	aaacaaacag	ggaaataaaa	caactcagaa	cctaagcata	tcgtaagaac	26100
ctaacttaac	aaggaggggc	ttaaactgat	tattttacag	cttgggtgca	attatcccac	26160
aaaaaacttt	caggagtttc	accagttcat	aaactatttg	gttattagaa	aatagcttta	26220
ttgggtctacc	ctctttgggt	ccctccctt	tgtatgggag	ctctgttttc	actctattaa	26280
atcttgcaac	tgcactcttc	tggtccgtgt	ttgttacggc	tcgagctgag	ctttcactct	26340
ccatccacca	ctgctgtttg	ccgccatcgc	aggcctgcca	ctgacttcca	tccctctgga	26400
tctagcaggg	tgtccgttgt	gctcctgatc	cagtggagacg	cccattgccg	atcccagactg	26460
ggctaaagac	ttgccattgt	tcctacgcgg	ctaagtgcgc	gggttcacac	taattgagct	26520
gaacactagt	cactgggttc	cacggttctc	ttctgtgacc	cgtggcttct	aatagagcta	26580
taacactcac	cgcgtggccc	aagattccat	ttatttggat	ccatgaggcc	aagaacccca	26640
ggtcagagaa	cacgaggctt	gccatcatct	tagaagcagc	ccgccaccat	cttcggagtt	26700
ctgggagcaa	ggaccccttg	gtaacaattt	ggcgaccaca	aagggacctg	aacccgcaac	26760
catgaaggga	tctccaaagc	ggtaatatgt	gaccactttt	gcttgctact	ctggcctatc	26820
ccttagaatt	ggaggaaaaat	actgggcacc	tgtcggcccg	ttaaaaacga	ttagcatggc	26880
cgccagactt	tagactcagg	tatgaggcta	tctggggaag	ggctttctaa	caacctctca	26940
cccttctggg	ttgggaacct	tggtctgcct	ggagccagct	tccactttca	attttcctgc	27000
ggaagccaag	ggctgactag	aggcagaaag	ctgtcgtccc	gaactcccgg	cattagccgg	27060
ttgagatcat	gtcgcagcca	gaagtctcta	ctcaacagtc	gcccattgcgt	gcgctcctac	27120
cttcccttct	gtcccacacc	tcttgggtcc	caaccacgac	tttcttgaaa	gtgtagcccc	27180
aaaatttctc	ttacctctga	atctacttcc	tctgatccct	gcctcctagg	tactaatggc	27240
tgagactttc	atttctctta	gcaagttgta	tctccaaagg	gatctaagga	agctctatga	27300
tgcgccctta	ggcatctagg	ctataaaccc	agggagctct	gtccctgggt	tccctcctga	27360
tttaggtata	cagctctaga	catgggcagt	tatgtgggac	ctgttcccca	ccaccttgc	27420

cagggcccca	agtttgtaaa	tggctaagag	aggaaacaga	gagagacaga	gagaaagaga	27480
cagtgaagaga	cagacagaga	cagagagaga	gagagacaga	gaggagagag	agagagacag	27540
ggaggacagg	gagagagaca	gagaggagag	ggagagagac	aaagaggaga	aagaggcaga	27600
gagacaaaaca	gggagtcaga	gaaagaaaga	caaagataga	aatagtaasa	aaaaacagtg	27660
tgccttattc	ctttaaaagc	cagggtaaat	gtaaaacctt	taattgataa	ttgaaggctt	27720
tctccgcgac	cctataaacac	tccaataacta	ccttggtgtc	agcgtaaaaca	agggcgtagc	27780
ctgaaaacac	taagaccact	gacaacccat	agccttccct	tcaaaaatcc	ttaacatcca	27840
gtgacctgcg	gatggcccaa	atgcattcaa	tctgtagcgg	caactgcttt	gctaacagaa	27900
aaaagtagaa	aagtaacttt	tagaggaaac	ctcattgtga	gcacacctca	ccggttcaga	27960
attattctaa	gtcaaaaaag	caaaaaggta	gcttattaac	tcaaaaatat	taaagtatgg	28020
ggctattctg	tcagaaaaag	gtaatttaac	actaaccact	gataattccc	ttaaccctgc	28080
agatttcctt	acaggggatt	taaattctta	ttaccatata	aagggtccgac	cagacctagg	28140
aggaactccc	ttcaggacag	gatgatagat	ggttccctcc	aaatgactga	ggaaaaaacc	28200
acaattggga	ttcagtaatt	gatagggaga	ctcttgtgga	agcagagtta	gaaaaattgc	28260
ctaataattg	gtctcctcaa	atgtcagagc	tgtttgcact	cagccaagcc	ttaacgtact	28320
taccgaatca	aaaagactat	ctcaatcctg	actcaaaagc	ttacttatac	cctctctgaa	28380
acgaatttgc	ctaagaactg	ttgtttatgg	gaatgcactt	tgatggagca	gctgggttgt	28440
tatgaaatac	tcaggaactc	agcctagctc	taggactcac	ccctgagcac	aaaggcaatg	28500
ttgggcacgc	tggtaaaagg	ccactagaat	ccagcagccc	ggaccccttt	ctttgtgatc	28560
aagaaaaggcg	ggaaaagggg	tgagggctgc	tacatcagtg	agcataacta	atccgataag	28620
cagaggtcca	tgggtgggta	cacaccccg	aaaggaataa	gcattaggac	catagaggac	28680
gctctaggac	taatgtctat	cggaaaatga	ctagtgggtg	tggcatcccc	atgttctttt	28740
ttcagatagg	aaacgttccc	ctcaaggcaa	aaacacccct	aagatgtatt	ctggagaatt	28800
gggaccaatt	tgactctcag	atgctaagaa	aaaaaagaca	tattcttctg	cagtaccgcc	28860
tggcaacgat	atactcttta	agggggagaa	acctggcatc	ctgagggag	cataaattat	28920
aacacatctt	tacagctaga	cctcttttgt	agaaaaagag	gcaaattggtg	tgaagtgtca	28980
tacgtacaaa	cttcttttct	attaagagac	aactcgcaat	tatgtaaaaa	gtgtgattta	29040
tgccttacag	gaagccctca	gagtctacct	ccctacccca	gcatccccc	gactccttcc	29100
ccaaataata	aggacccccc	ttcaacccaa	acggtccaaa	aggagataga	caaaggggta	29160
aacaactaac	caaagaatgc	caatattccc	cgattatgoc	ccctccaagc	ggtgggagga	29220
gaattcggcc	cagccagagt	gcacgtacct	ttttctctct	cagactttta	attaaaaatag	29280
acattaggtaa	attctcagat	aaccctaattg	gctattattga	tgtttttacaa	ggttttaggac	29340
aatcctttga	tctgatattg	agagatataa	tgttactgct	aaatcagaca	ctaaccctaa	29400
atgacagaag	tgtgcgcgta	actgcagcct	gagagtttgg	cgatctctgg	tatctcagtc	29460
aggtcaatga	taggtcgaca	acagaggaaa	gagaacgatt	ccccacaggc	cagcaggcag	29520
ttcccagtg	agacccctac	tgggacacag	aatcagaaca	tggagattgg	tgccgcagac	29580
atlttgctaac	ttgcgtgcta	gaaggactaa	ggaaaactag	aaagaagcct	gtgagttatt	29640
caatgatgtc	cactataaca	cagggaaaag	aagaaaatcc	taccgccttt	ctggagtgc	29700
taacggaggc	attgaggaag	catacctctc	tctgtcaact	gactctactg	aaggccaact	29760
aatctttaaag	gataagttta	tcaactcagtc	agctacagac	attaggaaaa	aacttcaaaa	29820
gtctgcctta	ggcccggaac	aaaacttaga	aaccctattg	aacttggcaa	cctcagtttt	29880
ttataataga	gatcaggatg	agcaggcaga	atgggacaaa	tgggataaaa	aaaaggccac	29940
cgctttagtc	atggccctca	ggcaagcgga	ctttggaggc	actggaaaag	ggaaaagcta	30000
ggcaaatcaa	atgcctaata	gggtttgctt	ccagtgcggt	ctacaaggac	actttaaaaa	30060
agattgtcca	aatagaaata	agccgcccc	tctgtccatgc	acctcgtgtc	aagggaaatca	30120
ctgtaaggcc	cactgcccc	ggggacgtag	gtcctctgag	tcagaagcca	ctaaccagat	30180
gatccagcag	caggactgag	agtgcgccgg	gcaagcacca	gcccattgcca	tcacccctac	30240
agagccctgg	gtatgcttga	ccattgacgg	ccaggaggct	aactgtctcc	tggacactgg	30300
tgtggccttc	tcagtcttat	tttctgttcc	cagacaaagg	tcttccagag	ctgtcactat	30360
ccaaggggtc	ctaggacagc	cagtcactag	atacttctcc	cagccactaa	gttgtgactg	30420
gggaacttca	ctcttttcac	atgcttttct	aattatgcct	gaaagcccaa	ctcccttgtt	30480
agggagagac	attctagcaa	aagcaggggc	cattatacac	ctgaacatag	gagaacaccc	30540
gtttgttgtc	ccctgcttga	ggaagggaatt	aatcttgaag	actgggcaac	agaaggacaa	30600
tatggacgag	caaagaatgc	ccgtcctgtt	caagttaaac	taaaggattc	tgcctccttt	30660
ccccaccaaa	ggcagtacc	ccttagaccc	gaggctcaac	aaggactcca	aaagattaag	30720
gacgtaaaag	cccaaggcct	agtaaaaagca	tgcataagcc	ctacaataa	tccaacttta	30780
ggagtacaga	acccagtg	acagtggagg	ttagtgaag	atctcaggat	tatcaatgag	30840
gtcactgtcc	ctctataact	agctgtacct	aacccttata	ttctgctttc	ccaaatacca	30900

gaggaagcag	agtgggtttac	agacctggac	cttaaggatg	cctttttctg	catccctgra	30960
catcctgact	ctcaattctt	atttgccttt	gaagatcctt	caaaccctaat	gtctcaactc	31020
acctggactg	tttcacccca	aggggttcagg	gatagccccc	atctatttgg	ccaggcatta	31080
gcccgaagact	tgagcccggtt	ctcatacctg	ggcactcttg	tccttttggt	tgtggatgat	31140
ttttactttt	agccgccagt	tcagaaacct	tgtgccatca	agtcacccaa	gtgtctcttaa	31200
attttctcgc	tacctgtggc	tacaagggtt	ccaaaccaaa	ggctcagctc	tgctcacagc	31260
aggtraaata	cttaggggcta	aaattatcca	aaggcaccag	ggccctcagt	gcctattctg	31320
gcttatcctc	atcccaaaaac	cctaaagcaa	ctaaggagat	tccttgacat	aacagggttc	31380
tgccaaatat	ggattcccag	gtacggcgaa	atagccagac	cattatatac	actaattaag	31440
gaaactcaga	aagccaatac	ccatttagta	agatggacac	ctgaagcaga	agcggctttc	31500
caggccctaa	agaaggccct	aacccaagcc	ccagtgttta	gcttgccaac	ggggcaagac	31560
ttttctttac	atgtcacaga	aaaaaacaga	aatagctcta	ggagtccctt	cacaggtcga	31620
tgagcttgca	acccatggca	tacctgagta	aggaattga	tgtagtggca	aagggttggc	31680
ctcattgttt	atgggtagtg	gcggcagtag	cagctttagt	atctgaagca	gttaaaaata	31740
tacaaggaag	agatctgtgt	agacatctca	taactgtaac	ggcatactca	ctgttaaagg	31800
agacttggtg	ctgtcagaca	accgtgagga	aagtactaaa	aatcgtaaat	cccatgggcc	31860
ctcccttate	atattttttct	ctttactgtt	ctcttaccct	ctttcactct	cactgcaccc	31920
cctccatgct	gctgtacaac	cagcagctcc	ccttaccgaag	agtttctatg	aagaatgcgg	31980
cttcccagaa	atattgatgc	cccatcaaat	aggagtttac	ctaaaggaaa	ctccaccttc	32040
actgcccaca	cccatatgcc	ccacaactgc	tataactctg	ccactctttg	catgcatgca	32100
aatactcatt	attggacagg	gaaaatgatt	aatcctagt	gtcctggaag	acttggagcc	32160
actgtctgtc	ggacttactt	cacccatact	ggtatgtctg	aggggggtgg	agttcaagat	32220
caggcaagag	aaaaacatgt	aaaggaagta	acctcccaac	tgaccgggtg	acatagcacc	32280
cctagccctt	acaaaggact	agatctctta	aaactacatg	aaaccctcca	taccataact	32340
tgccctggtaa	gcctatttta	taccaccctc	actgggctcc	atgaggcttc	ggcccaaaaac	32400
cctactaaact	gttggtatgt	cctcccccgt	tatttcaggc	catgcatttc	aatccctgra	32460
cctgaacaat	ggaacaacta	cagcacagaa	ataaacacca	cttccgtttt	agtaggacct	32520
cttgtttcca	atctggaaat	aaaccatacc	tcaaacctca	cctgtgtaaa	atttagcaat	32580
actgtagaca	caaccaactc	ccaatgcac	aggtgggtaa	ctcctcccac	acgaatagtc	32640
tgccctacct	caggaatatt	ttttgtctgt	ggtaccttag	cctatcgttg	tttgaatggc	32700
tcttcagaat	ctatgtgctt	cctctcattc	ttagtgcccc	catgaccatt	tacactgaac	32760
aagatttata	caattatggt	gtacctaaag	cccacaacaa	aagagtactc	attcttctct	32820
ttgttatcgg	agcaggagtg	ctagggtggc	taggttctgg	cattggcggt	accacaacct	32880
ctactcagtt	ctactacaaa	ctatctcaag	aaactcaatg	tgacatggaa	tgggttgccg	32940
actccctggt	caccttgcaa	gatcaactta	acttcctagc	atcagtagtc	cttcaaaatt	33000
gaagagcttt	agacttgcta	acctctgaaa	gagggggaag	ctgtttattt	ttaggggaag	33060
aatgttggtta	ttatgttatt	ttagcggaa	aatgttggtta	ttatgttaat	caatcctgaa	33120
ttgtcacaga	gaaagttgaa	gaaattcgag	attgaatata	acgtagaaca	gaggagcttc	33180
aaaaaacacca	gacctggggg	cctcctcagc	caatggatgc	cctggattct	cccttcttta	33240
ggatctctag	cagctctaat	attgatactc	ctctttggac	cctgtatctt	taacctcctt	33300
gttaagtttg	tctcttcag	aatcaaaagt	gtaaagctac	aaatcgttct	tcaaatggaa	33360
ccccagatga	agtccatgac	taagatctac	cgtggacccc	tggaaccggc	tactagccca	33420
tgctccaatt	gtaatgatat	cgaacgcacc	cctcccagg	aaatctcaac	tgcaacaacc	33480
ctactatgcc	ccaattccgc	aggaagcagt	tagactggtc	gtcagccaac	ctccccaaca	33540
gcacttgggt	tttctgttg	agtgggggga	ctgagagaca	ggattagctg	gatttcttag	33600
gccgactaag	aatcccaaa	cctagctggg	aagggtgacca	catccacctt	taaacactgg	33660
gcttgcaact	tagctcacac	ccgaccaatc	aggtagtaaa	gagagctcac	taaaatgcta	33720
attagacaaa	aacaggaggt	aaaaaaatag	coaatcatct	atcgccctgag	agcacagcgg	33780
gaaggacaat	gatcgggata	taaacccagg	cattcaagcc	ggcaacggct	accttctttg	33840
ggccccctcc	ctttgtatg	gagctctctc	tgtcttcaact	ctattaaata	ttgcaactgc	33900
aaaaaaaata	tagcttaatt	gaagaataaa	ttaatacaat	aaaagggaata	cttttaagt	33960
atacagttca	aactgtaaca	gtgttacagt	ttcaagagga	ccccttcaac	aagatattgg	34020
gcatttccat	catgccctaa	aagttccttc	ttgtccctta	ctgggtgggt	ccatctctac	34080
tacacctctc	tgacctggcc	cagaccttgg	cctcagaaga	atcatttttt	tgtcactaca	34140
tattagtttt	gtctgttcta	gaacttctta	aaaaacagaat	catagagtat	gttctctttg	34200
tattggtttt	ttttactcaa	tgtaatgttc	tgtgacattt	atccatatta	ttgcatgcat	34260
tattcccttt	aatcctgaat	agtatgctgt	tttaggaata	taatgcaatt	gtttattctat	34320
ttacctgttg	acagatatct	gagctattat	gatggatatt	atgaataatt	ctgctatgaa	34380

cacttctgta	caatgttttc	tcggacatat	attttcat	ttcttgagtg	gagctgttag	34440
aactgttggg	tcagaaagta	agcatatgtt	gaattttgaa	agaaactggg	aaactcttgc	34500
ctaaagtgt	ttgtaccatt	ttacactcct	actaataatg	tatgagagtt	atatttgctc	34560
cacagccttt	ttactacttt	gttaatcttt	ttagtactgt	caaccctttt	aatttatcca	34620
atctagggaa	cgtgaagtag	tatctcactg	ttattttcat	tttctgatg	agtaacaata	34680
tcgtgtatct	tttcatgtgc	ttattagcca	ttcctataat	ttttgtgaaa	tagttaactt	34740
aaatttgtaa	ctaaagggtg	tttcttgagt	ttcaggtagt	aagcctat	ccctcaagtg	34800
aataaactac	agtcttggaa	tgaaaaatta	aacacagtg	agacattttt	tgtataagtt	34860
gttttactct	gtgtatgtct	ggtttgctta	gtctattatt	atatgcccc	tgaaagcaaa	34920
cacagtgcct	atttcactaa	tgagtatcac	tagcacatag	aactgtgctt	gcccacagca	34980
tgaactcaat	aaatatgtta	atgtgtatgc	atgcacatac	atctacatgc	atgtacatct	35040
atacacacat	ataaacatat	attaattttt	agaccacaaa	atctaagaaa	actaattctt	35100
gagcctctgg	tttgaagaat	tctcaaat	ttacatatc	tttatgttcc	actccacatc	35160
cactgtacct	gaaatagccc	tactgttcta	ctttggtaaa	tcaggcaaat	ttattttttt	35220
aaataattaa	gattccaact	aatttttaaa	tataatttga	aagttaacaa	tgaaatacat	35280
tacataaaaa	gaaaattttt	aataaaaagca	aaactaaaac	caataagagg	aaagaaagtt	35340
gggctgtatt	tctttaatcc	tttaaaattc	aaatcacaca	atgctccaat	gaaatcttca	35400
ttactgaac	caaactatgc	ccatgaaaga	tctcatatgc	aactgctaaa	acctcaataa	35460
acataattcat	cttcttgcaa	aaaagatatt	tctttataat	atgcacatgc	agtatatact	35520
attttgaggc	agatttgtac	tttagtcctt	gttccattgc	ttaccggctg	gctgtccttt	35580
gtctggtcat	tgacctccaa	cttaaaaaat	aatacttgcc	ttgtctaccc	cacagaagtg	35640
ttatgaaagt	caaacaagg	agcataaagg	tattttacaa	gatataaagt	gctataatac	35700
agatttttaa	aatcactcta	catcccataa	tactttgttg	tacaatttta	gagcaatagt	35760
agaaaataac	aattattgcc	taattgaaaa	tccagtcccg	aattccataa	aatgtatgat	35820
atgaacatta	tagtacatca	tattacgagc	cccaaataat	cactgcttat	atagtgtgtt	35880
aggatttcct	tagtttgttc	atatagttta	tatatttatg	cagtccctat	tttgtgagag	35940
gcattgtgag	gagcataaag	acataagcac	agtacagagc	cttagcttct	ctacatttac	36000
taaagaagac	ttcttcttgg	gtatttaaac	aataatttaa	gtattctggg	aagaaatgaa	36060
attaacttca	tagactgacc	ttagattact	atcattacaa	aaagatgcct	gagtgtatctg	36120
tctttaacat	accagtattt	atcttataac	tgttatattt	acttgaatca	gaagtgaagt	36180
cctttttaagc	actaagcatc	cattctatac	tttcttgtct	ttacatatga	gatacaaatc	36240
atatttttaa	aacttttatt	tacttttatt	ttttagagac	ggagtcttgc	tctgtagccc	36300
aggctggagt	acagtggcat	gatcttggct	caccacaatc	tccacctcca	cttcccaggg	36360
ttcaagtga	caaatacatc	ttttaagcac	agattctcaa	catgtatcct	agcatgctac	36420
tgccataact	agggtgtgaa	ttaaagtatta	aagacagctt	accccaata	ttactgtaac	36480
atatactctc	aaatgaaaaa	gaacatatta	acaactatac	ttggatggga	ttctggggagc	36540
taacctcatcc	ctctctcccc	tttctcccaa	attccatctc	ctattaacac	accagctctc	36600
ctgagctaag	cagctcctgg	ggttggggaa	gggtgtacat	ggagaaaagct	agaacctcta	36660
cagtgttttc	ctctctggga	ggaactagca	ggcatacgaa	cagaaaaagc	tgaaataaaa	36720
gctgaatcct	ttctattcct	gaggcagaca	gagagaagac	cagggaaaca	cagggacttcg	36780
accaagagcc	ctgccaggta	ttgatacctt	tgatactgag	aaaatatctg	ggatatgaaa	36840
tacaaatgct	aaataagtat	ctttgaaata	ggggtaaaag	aataaagggt	cttgtatgag	36900
aaaatgggta	gtatttttta	ataacctgat	aatgagcttt	aggaaaaagg	aaggtcaacg	36960
ttatggaatg	aaaacacaga	ggtaccaa	ttaaaagcat	aaaaaaaaag	ggaggggggg	37020
aacccaataa	cttcatcaaa	ctagcaaata	acttagtatc	atttctaatt	agaaacgcta	37080
gaaggaaaac	acttagatct	gataaagact	aggctataat	tctaactgat	gaaacactta	37140
aactgtatca	attaatacca	gaaaacaaac	acagaaaagt	ctactagaac	catcattatt	37200
cagcacagtc	ttggtaatgc	aatactataa	tagcaatgca	ataaagcaag	aaaaaaaaaa	37260
gtttgtaaaa	acacaatagg	atgagatttt	tgtttttcca	atgccataaa	taactagaaa	37320
tggaacaaaa	ataaagaaaa	acaaaatcta	caaaacacct	ggaaataaaa	agaaaaatgg	37380
tctatttgaa	gaaaacctta	aaatctatgc	agaacataaa	acaaaactcg	ataaaaaaga	37440
aatatcatgt	tcttgtctgg	gaagacttaa	tatcataaga	aagtgaatta	tatcaaaatt	37500
taaaatcgaaa	tttaatgtat	ttccatctct	aatcagacag	gacactatgg	ggaactgaat	37560
aagtgttttt	aaaagtcatg	gaaaattaat	aactgagaat	aacctgaaa	agtatgaaaa	37620
aaggagacaa	atgaattgct	ccaacagata	tcagaacgct	aaaattaaat	aaaaatacta	37680
ctaggataag	aaaatacata	tactgatgta	atgaataaag	aatccagaat	tagattccag	37740
taagtcaaac	tactttacta	taaaccaggg	gtggcatatt	catccagtg	gaaaaggaca	37800
gtaaagaagt	agtaaaactat	ggcccactgg	ccaaattgtg	gcctctgcct	atttttgc	37860

ataaagtttt actgggacaa agccaagcct atcatttgca aattgtctat aaatatatttc 37920
 atgttacaga atcacacagt ttcaacagag accatcttgt ctacaaagct gaaaaatatct 37980
 actatctggc ccttgaagaa agtttgccaa accttagttt atataataaa agatcagcta 38040
 tctcatagac acctatctca cacaacacat tgtgggaaag gaacctcttt tttttttgag 38100
 acggggtctt gctctgttga ccaggctgga ctgtagtggc atgatcatgg ctcatgag 38160
 cctcaacctc ccaggttcaa gtaatgctcc caccacagaa tcccaaacag ctgggagaga 38220
 tgtgtgccac tacgcctggc taaggggctt ttttaacaga gaaagaaatc cacatactac 38280
 taagaaaaag aagggcattt ttgatataata tttatatatt ttatatagat atcataaaaa 38340
 tcaagatgaa ttatacagtt atatttttga atgtgtttga cggtaaaagt ttaatatcta 38400
 taaaaattat tttataaaat atctttaata tatttataga tattataata taaaatatct 38460
 ataaaattat tttataaaat aaaaagttaa gaagaaaaga taggcaaaac aaaatacagt 38520
 gcaatttaca gaaaaccaag tccaaatggt caacaaagat aaaacagatt tataaactca 38580
 ctaagtgtga gagaattatt agttaaagta aaaatatctc tctataccca caatactact 38640
 aaaaatcaga gttataatgc cctatttgctg gtggagatgt aaggggagaa gcatgctctc 38700
 atatactggt agtgaataat taaactaata catttttgaa agtlaagctg gcaatttttt 38760
 ttttaattct taccttttga tgcaaaaact catttttggg tacctattcc atactttaaa 38820
 aaaaatacat atgcttactg tagtactgtt tataatggta aaaactagaa aaaaagaaaa 38880
 ctgtatagtg aatactgaac aaattacagt gcatctacag attaaacata atgcagccat 38940
 taaaaaagaa taaattaggc tgggtgcggg ggctcatgcc cgtaatccca gcaatttggg 39000
 aggccaaaagc aggcggatca cttgaggcca ggagttcgag accagcctgg ccaacatggc 39060
 aaaaccctgg ctctacaaaa aatacaaaaa ttagtcgggc atggtggtgg gcacctgtag 39120
 tcccagctac tcaggaggct gaggcaggag aatcacttga gcctgggaga cagagattgc 39180
 agtgagccaa gatcatgcca cagcattcca gtccagggtg cagaacgaga ctctgtctca 39240
 acaaaaagaa caaattaaac cctacaactc atcaacaaaa ataccaaaac ccaattcaaa 39300
 aatgggcaaa ggacttgaat agacatttct tcaaggatga taaacaagca catgaaaaga 39360
 tgcagagcac tattcattag tgattacatc ccacatgcat taggatggct agtatgaaga 39420
 acagaaaaata ataaatattg gtgaagatct gaaaaacaga aacctttgtg cactgttggg 39480
 gggaatgtaa agtggtacag ctactacgga aaacagtag gccattcctc aagaaaataa 39540
 aataaaaatt atcttargat aggaatatgc atttctgggt aaatacccca aataactgaa 39600
 aacagggtgt acacccattt caacatttac atgtcaattc aactgggcca gaatacccag 39660
 atattttgtc aaatatctct ctggatgctt ctatatatat gttttttggc tgaggttaac 39720
 atttaaatgg gtggattctg agtacagcag attaccatcc acaatgtagg tgggcctcat 39780
 ctactcagtt gaaggcttta cagaaaaaga ctgacctccc ttgagcaaga aagaattcag 39840
 gcaacagact gcctttggac tcaactgcaa ccttctcttg agtcaacagc ccattccatc 39900
 accctggctt ggtgagttca ggggtctgat aggtaggctg cagactcaag gaagagctgc 39960
 caaaaccagg aaagccaatt cattaaaata aatctctctc tacacaaaac cacacacaca 40020
 ctaccaccac caccatgatg gttctgtttc tctggagaat gctaatacac ccctgttcat 40080
 ggcagcatta ttcacaatag ccaaaagggt gaagcaactc cagcagatga atggagaagc 40140
 aaaaatgtgt atgtatatac aatggaatat tattaagcct ttaaaaagtg gaaattatat 40200
 ctatctatat ctatacacac atactcacac acacacacac acatttatag aagacagggt 40260
 ttcaccatgt tgtcaaggct ggtctcgaac tctgggctc aagcaaaccg cctgcctcag 40320
 cttcccaaag tgctgagatt acatgtgtga gccaccacac ccagccaaaa aaaggacatt 40380
 ctgacacata atacaatata gataaacaat gaggacatca tgatatgcga aataagcctg 40440
 tcacaaaaag gcaattagtg tatgattcct cttgtatgag gtacctatgg atgtcaaatc 40500
 cataaagtag aatggggaaa cagagagttg tttaatgggt atagagtttg ttttgcaaga 40560
 agaaaagagt tttggagaat gaatgtacaa cagtgtgaac ataattaaca ctactgaaaa 40620
 tggttaagat tataaatatt atgttacatt tattttacca tgattaaaaa ttaaaacaaa 40680
 ataattattaa ggaaaaatac tataaataac aacaacaaaa aaaacacctc aagcaactta 40740
 cattcacctg ggaaacagaa tacatcctat tctgctagag atatatctgc agttcaaaat 40800
 ttattacaaa tgatgtttgt tatctttttg aaatgactga aaaactaaat taaaagcaat 40860
 aatatttcagt ttactaacca gtaagtctt ctttcatggg tctgacttt tctgtaagat 40920
 gttattgcaa gatatctact aaaatggaaa acaactgaaa aggcaaaatt ataatttctt 40980
 atcaacatcg ctaaaacctt ggagggggaag aatcctaaca aacatggcca taatttgcca 41040
 catatttcta ctgtcctcac ttttcaaaat ccagaaatca acatttctgg aaacaaaaca 41100
 gagtctaaaa tttggctcct tcttcagttt agaagggtgc aagttaatcc ctgacatcct 41160
 agtttccatt ttcaaaaatg tactttttct cccccaaaac cggtatctag attcttaaat 41220
 attttttagca catagaagtt aaatagattt gcttaaccaa aaacctccca 41280
 aaagaattaa aatattaatg gcgctttaat gatacaaatg aacaacttta cattcaatcg 41340

tcaatgggaa aggaagcaga attctgagga ttatgaaagt aaacaaaacg aagttcaaat 41400
 tctactttat tttacttttt tgtaactaat gaacaacttc ttccaaagac aagtaggaaa 41460
 tacaaaaatt agccaggcat ggcacatgcc tgtagtccctg gttacttgga aggctgaagt 41520
 ggggtggatcg cttgagccgg gaaggcagag gctgtagtga gctgagatca catcactgca 41580
 ctcaagccctg ggtgacagag caagaccctc tctggggaaa aaaaaaaaaa aaataggctg 41640
 ggcgcagtggt ctcacacttg taattccagc actttgggag gctgaggcag gtgggtccac 41700
 tgaggtcagg agttctagac cagcctgacc aatatggtga aaccctgtct ctactaaaaa 41760
 tacaaaaatt agccaggcat ggtggtgggc aattgtaatc ctactacttc gggaggctga 41820
 ggcaggaaaa tcgcctgaac ccaagaggcg gaggtttcag tgagccgaga ttgcactagt 41880
 gcactccagc ctgggcgaca gagcaagact tcatctcaaa ataaataaat aagtaagtaa 41940
 ataaaaattaa aaaatatata aaaataaaac aaagataagt aggaaccatc cttttttttt 42000
 tttttttttt ttttttttaa agatagggtc tgtttctgat gccagggctt gaggtagtg 42060
 gcatgatcat ggctcactgc aaccttgacc tctcaaatat aagtactctt cctacctcag 42120
 cctcccaagt agctgggact acagggtgctt accaccccat ccggctcatt taaaaaaatt 42180
 tttttgtaga ggtgggggtc cactatggtg tatccaggct ggtctcattt taactttatt 42240
 agaaaaacaag cattgtttta tcagcttctt gtttttttaa aactaaaaat aacactgcta 42300
 ggttgtttct atgaagattc tctaaattta ttataacct taagaataac atgtagaaca 42360
 aagtagatga ctgaatgatc tttgttgaat aaatatgaat ggatattcaa ataattaaaa 42420
 atctcttaag atctcccatt ctttacagga tacagagaaa actcgttaat atggcctgac 42480
 ttttaccttt gcagccttat ccaaactctg tggccaagac aaacagggtg tccctatact 42540
 tacaacgtcc ccctttgctc acaaagctct tctcatgact ctttgccctat ctttaagttca 42600
 cctatctgtc aaatctctgg gaatgcaaca tttcctcaag gtagccttct ctcctcccaa 42660
 actagaacaa attcttctct gggcattagg tttttattgc actgtatgtc tcttcttcac 42720
 agcaatcaca gttccaatgt tatatttgta ttcttagttg atttgtttct ttccaccttt 42780
 agactataac cttctaaggg gtcacacata atatcgatca tcagttgtat cccttgtgca 42840
 tagcacaggg catggcaggc aaatatgtgt gtaaaataaac ttgttgaatg aatcaatgag 42900
 acacactttt cttaccctaa gtataatggc aggataacat ttatcaatct attgcttctt 42960
 gaaaaacaga tatgatgtgc ttaattttca ttttacatct caaataccaa tgcctaagga 43020
 attcacagtc attttacaaa tctttttgac aaatgccttc attaatcacc acctgtttac 43080
 aagtgtctaaa taacattttg gttacattct gtaacatttc ctgcacttaa tgtcatctct 43140
 agaatactgg ctaatatgaa gcacctggac ttcaggaaca caaacctgaa actaacacac 43200
 caaactaaac tggtatgtaa atgacagaaa tgacacattt tggctctgca catctctaga 43260
 tggcttttgg accaattcaa cttttaccac taaaaatcgg tcacctgact atagtcattt 43320
 tgagctcatg ataaatgaat tacagatgaa tttgatgaca tttgtatgaca atctttacaa 43380
 aagtttatct tcaaagaata ccaccagtca caggatttct aggctcctat caacttattt 43440
 ggtcagggca gacttcactt ttcatgataa ttatgttctg aaaattctac aaacttaatg 43500
 attacaaaaca aaagtcatag tttgtctata aatcaggcct aggtctggat tctagttctt 43560
 ccatttttca tttgttcaat gaggcaagtg acttaaaatt ccctagcctc agtttctctc 43620
 catgtaaaat cagataatga ttctatttcc taagatggtt ttgaggcttc aacaagataa 43680
 gatgggcctc tctcaagcat gctcagtact ctgtctctct ctctccggtt actcagaaat 43740
 tctattagga ttctgcaaag taaaataaat atttcagtaa aaattatgcc ctttattaat 43800
 gaatctagat tttcagattt tccttaaatt tacttagtaa ctttaagggt caaatattat 43860
 agagatttgt atctagtatt ttaaagaaat gaaagggtgt aatcaaaatg ctgcacaaat 43920
 aaatgctaca ttttaacaaac agaatatcac aaccatacaa actaatcaga tataaagaag 43980
 tcagcaacag aaatctgatg ttgcctttag atcacacaat taggcaaaca aaaatagagt 44040
 tccatcctcc tttggtcaag gccatggtg aagactgaat accaaatagg gaaataggaa 44100
 aagccaggaa atggcaaat agcaaaaact ggactcctta atttttatat tcattttcat 44160
 atctcacttc taaaacttta attaaattca aataaaaacc aaaatggaac tgagataaag 44220
 ccaaaaggaa agttatgtag gtcaaatgag aacctatatt gtccttaggc tctttgttgc 44280
 tttctgttta aggaaaaact gcccaagtgc cttgacacat taaagatcaa gcaggaggtt 44340
 ctgccgagag tccccatctg gcagccaggt tttgtcaagc aaatttttgag aattctctag 44400
 cctcccactt tctatctaatt tatagcactt tatataaaacc attctctctc tgtctctgtc 44460
 tctctctctc tctctctctc acacacacac acacacacac acacacacac acacacaccc 44520
 tttctctctc tctctctctg aaacttatct gtattataat aacacaacac taggtatgga 44580
 ttaatctgac aattttcccc taaaacagaa taaattcaaa aaggaaaacc tttcctctgt 44640
 acacatgcac tatattctga caataataat tcttaaatta agtataatc attttcccta 44700
 caggagtta aagaagttac agtaaagaat ctcttgata aatatatatg ccagaacttg 44760
 acccaataaa gtgctgagag gtataaatct caaaacagtt tccggactct ttgtgaaatg 44820

tcttcagagt ctgcgatata ttttcttcaa ctaaattata caagtaagat attttgctgg 44880
 gctgtgggaa tgccttacgg catgttactg tggagctcat ggtaaaatag aaagaatata 44940
 aataattaaa ataaaattga caaatgataa atgatttaat aaattagaaa ttcaaagtgc 45000
 gggcactttt ctagaacctg gacacaaagc atgaacctaa caataacccc gccttcatga 45060
 aaaatatgga ctatttgaaa attataacctg caacactaaa taaatattct tcattcttcc 45120
 agtataattga gatgtttact ttcaattaga caatttgctt tcctctctga acacatagtt 45180
 atgtgatggc tctataaaaag attttaaaat aactatagaa ggaactattg gtaaagactg 45240
 tgggatacta aaaatggcta caaagaaagt tatgacaaaa cctctgagtt tgaatggaag 45300
 tcctactaga ttagagtcta agcctgtgac attatgcttc tgggtcttgt tcttaaatgc 45360
 ttttctcatt aatagtattg aacttacttc ctggaatgcc attcattaaa aaaatattta 45420
 atatttgcta aatgtcaata tttatgccag cactttttaa gtacagaaac atggagtttc 45480
 tttacctcat gcaaatatgc tgtgagaaag acttaagagc ctattgccta ctttgtggta 45540
 caacactgaa gactcaccat ccaaaacaaa cagacttagt aaattcttgt gatttgcagt 45600
 agttctgttc tataaggtta ccacaaacac tgaaatcatc gctcctgggg gaatacaagg 45660
 ttatgtttcc gtgagccctc ggtcacaaca tgttcattaa ctgatcaata cataaccttg 45720
 ttctatgtgt gtttctgttt aaaaagagca cttcagtgtc acatttggag tctgttttaa 45780
 acagcaaaat cactaataaa aagcacaaaa atgtaaaagc atggcactac atacactgtg 45840
 acaagaaggc ttgtttatag tatgacagct gagacaagaa ggtagagcct cgctttgatc 45900
 aacctctgct gggaaatgag catcaggtga atcaattttt caccactctg aatgaccgta 45960
 aaagtgtctc aagtactgac tttggggtta cacataaatt ttagtaagca tgtgaatctg 46020
 ccaatatgaa atctacaaat aatgagtacc aaatgcatat gagtcaaata tttcagtgcg 46080
 gtatctgact tgattgccac tgaaaagacac agtttggaaa acccctaata aataccgttt 46140
 agttactatg cagacaaaga gttctacact agagtgttcc aattaagatg tctgaggctt 46200
 tcataaatgg atgtttttta aaatgttatt tcctacctga tatattctaa aggggatata 46260
 acgaaatcca ttttcttctg caggatattc catgagtttc cgattgatgg cccaaaactg 46320
 gtcaaatctg tctgtaatga 46340

<210> 67
 <211> 773
 <212> ADN
 <213> Homo sapiens

<400> 67
 actgagagac aggactagct ggatttccta ggctgactaa gaatccctaa gcctagctgg 60
 gaagggtgacc acatccacct ttaaacacgg ggcttgcaac ttagctcaca cctgaccaag 120
 gaagggtgacc acaccctcct ttaaacacag agcttgtaac tcagctcaca cccgaccaat 180
 caggtagtaa agagagctca ctaaaatacc aattaggcta aaaacaggag gtaaagaaat 240
 aatcaaatga tctatcgctc gagagcacag ggggagggac aatgatcggg atataaacc 300
 aggcatttga gccagatcag gtaaccctct ttgggtcccc tcacactgta tgggagctct 360
 gttttcactc tattaaatct tgcaactgca cactcttctg gtccatgttt gttccggctc 420
 aagctgagct tttgctcgcc gtccaccact gctgaatgcc gccattgcag acctgccctt 480
 gacttccacc cctccggatc cggcagagt tccgctgcac tcctgatcca gcgaggcacc 540
 cattgccact cccgatcagg ctaaaggctt gccattgttc ctgcacagct aagtgcctgg 600
 gttcatccta atcaggctga acactggtcg ctgggttcca cggttctctt ccatgactca 660
 cagcttctaa tagagctata acactcacca catggcccaa ggttccattc gttggaatcc 720
 atgaggccaa gaaccccgag tcagagaata aaaggcccg cccatcttgg gag 773

<210> 68
 <211> 10
 <212> PRT
 <213> Homo sapiens

<400> 68
 Phe Leu Gly Glu Glu Cys Cys Tyr Tyr Val
 1 5 10

73

<210> 69
<211> 10
<212> PRT
<213> Homo sapiens

<400> 69
Leu Leu Phe Gly Pro Cys Ile Phe Asn Leu
1 5 10

<210> 70
<211> 10
<212> PRT
<213> Homo sapiens

<400> 70
Cys Leu Pro Leu Asn Phe Arg Pro Tyr Val
1 5 10

<210> 71
<211> 10
<212> PRT
<213> Homo sapiens

<400> 71
Gly Leu Leu Ser Gln Trp Met Pro Trp Ile
1 5 10

<210> 72
<211> 9
<212> PRT
<213> Homo sapiens

<400> 72
Cys Leu Pro Ser Gly Ile Phe Phe Val
1 5

<210> 73
<211> 9
<212> PRT
<213> Homo sapiens

<400> 73
Trp Met Pro Trp Ile Leu Pro Phe Leu
1 5

09719554-011801

74

<210> 74
<211> 10
<212> PRT
<213> Homo sapiens

<400> 74
Ile Arg Trp Val Thr Pro Pro Thr Gln Ile
1 5 10

<210> 75
<211> 10
<212> PRT
<213> Homo sapiens

<400> 75
Leu Arg Asn Thr Gly Pro Trp Gly Leu Leu
1 5 10

<210> 76
<211> 10
<212> PRT
<213> Homo sapiens

<400> 76
Leu Arg Thr His Thr Arg Leu Val Ser Leu
1 5 10

<210> 77
<211> 10
<212> PRT
<213> Homo sapiens

<400> 77
Lys Arg Val Pro Ile Leu Pro Phe Val Ile
1 5 10

<210> 78
<211> 10
<212> PRT
<213> Homo sapiens

<400> 78
Cys Arg Cys Met Thr Ser Ser Ser Pro Tyr
1 5 10

PCT/FR99/01513

75

<210> 79
<211> 10
<212> PRT
<213> Homo sapiens

<400> 79
Thr Arg Val His Gly Thr Ser Ser Pro Tyr
1 5 10

<210> 80
<211> 10
<212> PRT
<213> Homo sapiens

<400> 80
Ala Arg Glu Lys His Val Lys Glu Val Ile
1 5 10

<210> 81
<211> 10
<212> PRT
<213> Homo sapiens

<400> 81
Ser Arg Ile Glu Ala Val Lys Leu Gln Met
1 5 10

<210> 82
<211> 10
<212> PRT
<213> Homo sapiens

<400> 82
Ser Gln Trp Met Pro Trp Ile Leu Pro Phe
1 5 10

<210> 83
<211> 9
<212> PRT
<213> Homo sapiens

<400> 83
Cys Tyr Tyr Val Asn Gln Ser Gly Ile
1 5

T08T0"4556T260

76

<210> 84
<211> 9
<212> PRT
<213> Homo sapiens

<400> 84
Phe Tyr Tyr Lys Leu Ser Gln Glu Leu
1 5

<210> 85
<211> 9
<212> PRT
<213> Homo sapiens

<400> 85
Thr Tyr Thr Thr Asn Ser Gln Cys Ile
1 5

<210> 86
<211> 9
<212> PRT
<213> Homo sapiens

<400> 86
Ser Phe Leu Val Pro Pro Met Thr Ile
1 5

<210> 87
<211> 9
<212> PRT
<213> Homo sapiens

<400> 87
Tyr Tyr Val Asn Gln Ser Gly Ile Val
1 5

<210> 88
<211> 9
<212> PRT
<213> Homo sapiens

<400> 88
Leu Phe Asn Thr Thr Leu Thr Gly Leu
1 5

09719554.011001

77

<210> 89
<211> 9
<212> PRT
<213> Homo sapiens

<400> 89
Leu Phe Gly Pro Cys Ile Phe Asn Leu
1 5

<210> 90
<211> 9
<212> PRT
<213> Homo sapiens

<400> 90
Arg Trp Val Thr Pro Pro Thr Gln Ile
1 5

<210> 91
<211> 10
<212> PRT
<213> Homo sapiens

<400> 91
Leu Pro Phe Leu Gly Pro Leu Ala Ala Ile
1 5 10

<210> 92
<211> 10
<212> PRT
<213> Homo sapiens

<400> 92
Leu Pro Tyr His Ile Phe Leu Phe Thr Val
1 5 10

<210> 93
<211> 10
<212> PRT
<213> Homo sapiens

<400> 93
Gly Ala Leu Gly Thr Gly Ile Gly Gly Ile
1 5 10

09719554 011801

78

<210> 94
<211> 10
<212> PRT
<213> Homo sapiens

<400> 94
Leu Pro Phe Val Ile Gly Ala Gly Val Leu
1 5 10

<210> 95
<211> 9
<212> PRT
<213> Homo sapiens

<400> 95
Arg Arg Pro Leu Asp Arg Pro Ala Ser
1 5

<210> 96
<211> 9
<212> PRT
<213> Homo sapiens

<400> 96
Phe Arg Pro Tyr Val Ser Ile Pro Val
1 5

<210> 97
<211> 9
<212> PRT
<213> Homo sapiens

<400> 97
Arg Arg Ala Leu Asp Leu Leu Thr Ala
1 5

<210> 98
<211> 9
<212> PRT
<213> Homo sapiens

<400> 98
Trp Arg Met Gln Arg Pro Gly Asn Ile
1 5

09719554-011001

79

<210> 99
<211> 10
<212> PRT
<213> Homo sapiens

<400> 99
Asp Arg Ile Gln Arg Arg Ala Glu Glu Leu
1 5 10

<210> 100
<211> 10
<212> PRT
<213> Homo sapiens

<400> 100
Leu Arg Thr His Thr Arg Leu Val Ser Leu
1 5 10

<210> 101
<211> 10
<212> PRT
<213> Homo sapiens

<400> 101
Glu Arg Val Ala Asp Ser Leu Val Thr Leu
1 5 10

<210> 102
<211> 10
<212> PRT
<213> Homo sapiens

<400> 102
Leu Phe Gly Pro Cys Ile Phe Asn Leu Leu
1 5 10

<210> 103
<211> 10
<212> PRT
<213> Homo sapiens

<400> 103
Gln Phe Tyr Tyr Lys Leu Ser Gln Glu Leu
1 5 10

TOSTO 4567260

80

<210> 104
<211> 10
<212> PRT
<213> Homo sapiens

<400> 104
Gln Trp Met Pro Trp Ile Leu Pro Phe Leu
1 5 10

<210> 105
<211> 10
<212> PRT
<213> Homo sapiens

<400> 105
Cys Tyr Tyr Val Asn Gln Ser Gly Ile Val
1 5 10

<210> 106
<211> 10
<212> PRT
<213> Homo sapiens

<400> 106
Asn Phe Val Ser Ser Arg Ile Glu Ala Val
1 5 10

<210> 107
<211> 9
<212> PRT
<213> Homo sapiens

<400> 107
Gly Pro Leu Val Ser Asn Leu Glu Ile
1 5

<210> 108
<211> 9
<212> PRT
<213> Homo sapiens

<400> 108
Leu Pro Leu Asn Phe Arg Pro Tyr Val
1 5

09719554.011801

81

<210> 109
<211> 10
<212> PRT
<213> Homo sapiens

<400> 109
Leu Pro Phe Leu Gly Pro Leu Ala Ala Ile
1 5 10

<210> 110
<211> 10
<212> PRT
<213> Homo sapiens

<400> 110
Glu Pro Lys Met Gln Ser Lys Thr Lys Ile
1 5 10

<210> 111
<211> 10
<212> PRT
<213> Homo sapiens

<400> 111
Leu Pro Tyr His Ile Phe Leu Phe Thr Val
1 5 10

<210> 112
<211> 9
<212> PRT
<213> Homo sapiens

<400> 112
Arg Glu Lys His Val Lys Glu Val Ile
1 5

<210> 113
<211> 10
<212> PRT
<213> Homo sapiens

<400> 113
Lys Pro Arg Asn Lys Arg Val Pro Ile Leu
1 5 10

09749554 014001

82

<210> 114
<211> 9
<212> PRT
<213> Homo sapiens

<400> 114
Val Val Leu Gln Asn Arg Arg Ala Leu
1 5

<210> 115
<211> 10
<212> PRT
<213> Homo sapiens

<400> 115
Ala Val Val Leu Gln Asn Arg Arg Ala Leu
1 5 10

<210> 116
<211> 9
<212> PRT
<213> Homo sapiens

<400> 116
Leu Pro Phe Val Ile Gly Ala Gly Val
1 5

<210> 117
<211> 9
<212> PRT
<213> Homo sapiens

<400> 117
Asp Leu Tyr Ser Tyr Val Ile Ser Lys
1 5

<210> 118
<211> 10
<212> PRT
<213> Homo sapiens

<400> 118
Thr Glu Gln Asp Leu Tyr Ser Tyr Val Ile
1 5 10

0919554.011804

<210> 119
<211> 2615
<212> ADN
<213> Homo sapiens

<400> 119
gaattccggg aagccagacg gttaacacag acaaagtgtc gccgtgacac tcggccctcc 60
agtgttgccg agaggcaaga gcagcgaccg cgcacctgtc cgcccgagc tgggacgcgc 120
gcccgggccc ccggacgaag cgaggaggga ccgcccaggc tgcccccagg tgtaactcca 180
gcactgtgag gtttcaggga ttggcagagg ggaccaaggg gacatgaaaa tggacatgga 240
ggatgcggat atgactctgt ggacagaggc tgagtgtgaa gagaagtgtg catacattgt 300
gaacgaccac ccctgggatt ctggtgctga tggcggctact tcggttcagg cggaggcatc 360
cttaccaagg aatctgcttt tcaagtatgc caccaacagt gaagagggtta ttggagtgat 420
gagtaaagaa tacataccaa agggcacacg ttttggaccc ctaatagggtg aaatctacac 480
caatgacaca gttcctaaga acgccaacag gaaatatttt tggaggatct attccagagg 540
ggagcttcac cacttcattg acggctttta tgaagagaaa agcaactgga tgcgctatgt 600
gaatccagca cactctcccc gggagcaaaa cctggctgcg tgtcagaacg ggatgaacat 660
ctacttctac accattaagc ccatccctgc caaccaggaa cttcttgtgt ggtattgtcg 720
ggactttgca gaaaggcttc actaccctta tcccggagag ctgacaatga tgaatctcac 780
acaaacacag agcagtctaa agcaaccgag cactgagaaa aatgaactct gcccacagaa 840
tgtcccaaag agagagtaca gcgtgaaaaga aatcctaataa ttggactcca accctccaa 900
aggaaaggac ctctaccgtt ctaacatttc accctcaca tcagaaaagg acctcgatga 960
ctttagaaga cgtgggagcc ccgaaatgcc cttctaccct cgggtcgttt accccatccg 1020
ggccctctct ccagaagact ttttgaaagc ttccctggcc tacgggatcg agagaccac 1080
gtacatcact cgctccccc tccatcctc caccactcca agccctctg caagaagcag 1140
ccccgaccaa agcctcaaga gctccagccc tcacagcagc cctgggaata cgggtgtccc 1200
tgtgggcccc ggctctcaag agcaccggga ctctacgct tacttgaacg cgtcctacgg 1260
cacggaaggt ttgggctcct accctggcta cgcacccctg cccacctcc cgcagcttt 1320
catccctctg tacaacgctc actaccccaa gttcctcttg cccctctacg gcatgaattg 1380
taatggcctg agcgtctgtg gcagcatgaa tggcatcaac aactttggcc tcttcccag 1440
gctgtgccct gtctacagca atctcctcgg tgggggcagc ctgccccacc ccattgctca 1500
ccccacttct ctcccgagct cgctgccctc agatggagcc cggagggttg tcagcccgga 1560
gcattcccag gaggtgcttg tccgggcgcc ccacagtgc ttctccttta ccggggccgc 1620
cgccagcatg aaggacaagg cctgtagccc cacaagcggg tctccacagg cgggaacagc 1680
cgccacggca gaacatgttg tgcagcccaa agctacctca gcagcgatgg cagccccag 1740
cagcgacgaa gccatgaatc tcattaaaaa caaaagaaac atgaccggct acaagaccct 1800
tccctacccg ctgaagaagc agaacggcaa gatcaagtac gaatgcaacg tttgcgcaa 1860
gactttcggc cagctctcca atctgaaggt ccacctgaga gtgcacagtg gagaacggcc 1920
tttcaaatgt cagacttgca acaagggtt tactcagctc gccacctgc agaaacacta 1980
cctggtacac acgggagaaa agccacatga atgccaggtc tgccacaaga gatttagcag 2040
caccagcaat ctcaagaccc acctgcgact ccattctgga gagaaaccat accaatgcaa 2100
ggtgtgccct gccaaagtta ccagtttgt gcacctgaaa ctgcacaagc gtctgcacac 2160
ccgggagcgg ccccaacaag gctcccagtg ccacaagaac tacatccatc totgtagcct 2220
caaggttcac ctgaaaggga actgcgctgc ggccccggcg cctgggctgc ccttggaga 2280
tctgaccgga atcaatgaag aaatcgagaa gtttgacatc agtgacaatg ctgaccggct 2340
cgaggacgtg gaggatgaca tcagtgtgat ctctgtagtg gagaaggaaa ttctggcgt 2400
ggtcagaaaa gagaaagaag aaactggcct gaaagtgtct ttgcaaagaa acatggggaa 2460
tggaactctc tctcagggt gcagccttta tgagtcatca gatctacccc tcatgaagtt 2520
gcctccagc aaccactac ctctggatcc tgtaaaggtc aaacaagaaa cagttgaacc 2580
aatggatcct taagattttc agaaaacact tattt 2615

<210> 120
<211> 29
<212> PRT
<213> Homo sapiens

84

<400> 120

Leu Gln Asn Arg Arg Ala Leu Asp Leu Leu Thr Ala Glu Arg Gly Gly
1 5 10 15

Thr Cys Leu Phe Leu Gly Glu Glu Cys Cys Tyr Tyr Val
20 25

<210> 121

<211> 21

<212> ADN

<213> Homo sapiens

<400> 121

cttcaaaca caaccaggag g

21

<210> 122

<211> 20

<212> ADN

<213> Homo sapiens

<400> 122

ttggggaggt tggccgacga

20

FOSTO" 456T 260